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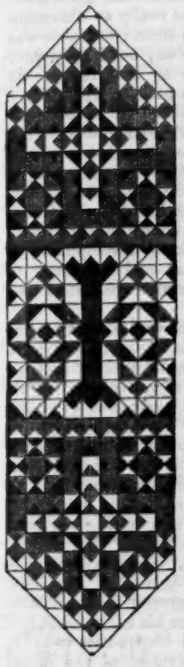

*A Word in Favour of Sir Joshua and Grandeur of Style.**

IT needs not to have been born quite at the beginning of the century to feel a shock of surprise by such a reversal of early prepossessions as many will be painfully sensible of who open their eyes upon the pages of contemporary criticism, to find the "Discourses" of Sir Joshua Reynolds only indulgently tolerated,—the authority of the first and greatest President of the Royal Academy,—the artist who was not made by, but who made, the Academy, treated *de haut en bas*. After the first recovery of breath the thought comes naturally upon us to consider awhile how we stand, to verify our moral orientation. The world is always moving on, and that it even seems to us to be moving now faster than it ever moved, is warning that much may have to be considered. The City of London has been rebuilt within recent memory; the large metropolis covers an area more than double that of the London of our immediate fathers. Yet a thoroughly well-informed student of history will accept a challenge to show that even beyond what concerns London itself, and in the depth of what in so many respects are justly called the Dark Ages, there is not a century that did not contribute to the development of the world as importantly, because as indispensably for the development that was to follow and owe to it the conditions of its progress. So those who are given to be deferential to critical dignities or generally timid may, perhaps, demur modestly to the disallowance of the merits of Sir Joshua, on the plea that, at least, he cleared some ground for the opportunities of a superior criticism,—for the display of more enlightened successors. As to ourselves, however, we are not inclined to descend in our advocacy to any such humble point of view. The world is moving, doubtless,—be this freely allowed; and it is cheering to have sufficient assurance that, on the whole, it is unquestionably moving on,—moving forward. But the advance which it achieves is by no means along a uniform straight line; very different, indeed, from this; and so it will appear if we apply Hamlet's

> "Capability and Godlike reason
> Looking before and after,"—

and extend our scope from the present and passing, to some distance in a reverse direction along the past. The flattering straight line of supposed continuous progress is then apt to betray itself as the return of a zigzag, or possibly the segment of a curve, which, from any power our limited observation gives to us of determining its elements, may be insensibly returning into itself. The movement that goes on in the world is a reality,—we have no assurance of anything that is more real,—but it is always possible that an observation of movement, at any moment, may only be a record of recoil, and that what is supposed to be obsolete in art or in opinion is only in undeserved and temporary abeyance. In the clamour around us a still small voice is lost to all but the very finest and most attentive ears. We stand in the world amidst crowded and conspicuous displays of contemporary talent and activity; and contemporaries are excusable for not thinking it their business to divert attention from themselves to the achievement of the great heirs of glory, due to deathless praise, who have at least been long credited with such heritage as their due. Nevertheless, and indeed all the more, it behoves us to remind ourselves that, as the relative places and even magnitudes of all things are changing, it may not be surprising if those which are nearest to us seem, but only seem, least mutable. Generations of men followed generations through long ages before it became patent that it was not the stars and a firmament bearing them that were in rapid motion, but man himself, and the earth that he was standing on, and from which he deemed as from a solid basis that he was observing the heavenly appearances; and we shall do well to take warning, and be on our guard against hastily supposing that we are watching our time-honoured authorities decline towards utter disappearance, while the fact may be that we ourselves and our confident teachers together are drifting away to this catastrophe. It is not merely the world of criticism and art,—the world of science is subject to the same bewilderments. We have recently been told by an accomplished lecturer how the rash denunciation by the *Edinburgh Review*, in the pride of its youth, threw back the recognition of a noble discovery respecting light for fifteen years. During those fifteen years no doubt the authority of Dr. Thomas Young was no less flippantly referred to than that of Sir Joshua Reynolds may now be as "gone by." It is to be hoped, for his own sake, that the natural philosopher was also a moral philosopher, and did not allow his pride to be hurt, or his equanimity in any degree disturbed, by the unjust verdict that had been gained against him by a rising genius who had his reputation to make, not as a philosopher, but as a successful advocate at any cost to philosophy. The time came round for the sagacity of Young to be vindicated and his fame established. It is not, however, always that genuine desert, even after it has been fully and frankly acknowledged, is secure against subsequent and prolonged eclipse. It appears that not only have we to recognise a bounden duty to do justice to the reputations of hitherto unacknowledged benefactors of mankind, but also to furbish up the neglected monuments of those whose merits, once renowned, have fallen into unmerited oblivion; while at the same time taking care that we be not preparing like work for our successors, and providing occasion for them to be as severe upon us as we are upon former stoners of the prophets whose monuments we are raising or repairing. A prophet, however, if he is worthy of his office, may congratulate himself upon having no worse fortune than being stoned. Truth, of which a prophet is the living personification, has most to complain of when she is neither stoned nor reviled, but when she cries about the streets and no man regards her. And so, to come back to our theme, it may be some consolation to those who are conscious of a sentiment which is akin alike to affection and reverence for the spirit of Sir Joshua's life and teaching, that his "Discourses" are at least not left out of notice altogether by those who measure the artistic and critical faculties at present in vogue with those of the past; but that they are recognised as presenting themselves with such a claim to attention as extorts a sentence at least, if not a paragraph, of depreciation and disrespect.

If we go back a few decades, we find that the "Discourses" of Sir Joshua were carped at less on account of any faults or superficiality, such as good friends of the arts charge upon them at present, than as inconsistent with his practice, and thus giving opportunity to suggest insincerity and a purpose of calculating self-interest. The "Life of Reynolds" by Allan Cunningham has certain qualities which make it more agreeable, and in some respects even more valuable, than a later more laborious and more critically-conscientious compilation; but assuredly it was written with what may possibly have been a conscientiousness genuine enough in its way, but which failed sadly in cautious self-criticism. That a writer does not promulgate false imputations, well knowing them,—as the indictments say,—to be false, is not ground for plenary exculpation in respect of all the mischief they do. He is bound to keep watch over his own liabilities to prejudice and prepossession,—to protect and purify his conscientiousness before he applies to a task which he ought to be aware will of necessity expose him to the risk of doing injustice, unless he marches under safeguard of a warning-test most true and sensitive. The charge of Cunningham is nothing less than that Reynolds, in his "Discourses," and also in his private advice to students, deliberately affected a greater enthusiasm than he felt for "Michelangelo, the Sistine Chapel, and the Grand style," for the purpose of sending off rivals, and students who might one day be rivals, in a false direction,—a direction which could not possibly lead to success in the England of his day,—he himself being wise enough meantime to keep his enthusiasm to his lectures and his talk, and apply with jealous and eager industry to gathering guineas by a process far removed from his-

* "The lectures of Reynolds furnish agreeable reading, but run chiefly in the easy region of generalisation."

torical or ideal design,—in fact, by portraits,—and by something like the manufacture of portraits. The forms under which the charge thus blankly stated is conveyed are curiously and, in a certain sense, instructively varied. An Aristotle or a Theophrastus, or a La Bruyère, might cull out from the biography a complete series of examples of insinuation, to illustrate a character or a dialectic system graduated from mere cautions and half-unconscious disapproval to purely disingenuous and even malignant denunciation. Pope has drawn a masterly description of the ill-natured envy which,

> "Willing to wound and yet afraid to strike,
> Just hints a fault and hesitates dislike,
> Damns with faint praise,—assents with civil leer,"

and can without sneering teach the rest to sneer; but this is a different morbid outgrowth, or only one variety of the same tendency. Detraction has another and a broader style of blending the same elements of seeming approval and effective depreciation. To give faint praise to Sir Joshua Reynolds as an artist, would be too certainly for the critic to damn himself; the biographer protects himself, and keeps open ever a safe line of retreat—a harbour of refuge—by commencing with a lavish expression of admiration which must be grateful to the most devoted worshippers of genius, bespeaks a favourable hearing from all, and puts the unwary off their guard against anything but sincerity and simplicity from one who is so entirely on their side.

An elaborate eulogy, too long to extract entire, commences:—"Certainly in character and expression, and in manly ease, he has never been surpassed. He is always equal, always natural, graceful, unaffected. He had the singular art of summoning the mind into the face, and making sentiment mingle in the portrait."

How is this to be reconciled with the conclusion of the very paragraph:—

"Had Colonel Charteris sat to Reynolds, he would, I doubt not, have given him an aspect worthy of a President of the Society for the Suppression of Vice."

It is not to be reconciled; the short jet of cold sarcasm can only have the purpose as the natural consequence of condensing the rapture of all that has preceded. The qualification which has the last word always tells with a force disproportionate to the terms it is expressed in.

When praise for industry seems accurately balanced against imputed greed it is the venom of the latest phrase that lingers:—"Reynolds had now (at 54) acquired fame and amassed a fortune. Yet such was his unabated *activity*, that he continued to paint with the *avidity* of one labouring for bread."

Again,—"He had *charmed* effectually the public eye; and kept the world chained to him by the strong and enduring link of *vanity*."

Once more. "Reynolds was commonly humane and tolerant,—he could indeed afford, both in fame and in purse, to commend and aid the timid and the needy"; and anecdotes of his humanity are supplemented and more than neutralised forthwith by one of his sharp and intolerant criticism of a "young and trembling practitioner," who, for all we know, may have required and been the better for the lesson.

It was one of the pleasant delusions of his life, says Cunningham, that the divinity of Michelangelo inspired him in his productions; he was ever calling on his name—invoking him by his works—and making five guineas an hour in the belief that the severe majesty of Buonarotti was at least dimly seen among the curls and flounces, laced waistcoats, and well-powdered wigs of his English nobility."

"The last time that Reynolds made his appearance in the Academy was in the year 1790. He addressed a speech to the students on the delivery of the medals, and concluded by expatiating upon the genius of his favourite master in such words as a credulous Catholic may use in praise of a benevolent saint. 'I feel,' he said, 'a self-congratulation in knowing myself capable of such sentiments as he intended to excite,' &c.,—the so well-known passage."

The sneer in this case is directed as point-blank at Buonarotti as at Reynolds; it would pierce, if pierce at all it could, the one through the other. What Cunningham may have thought of the great Florentine,—how far he in any degree was entitled to share the self-congratulation of Sir Joshua concerns us very little; he was, probably, no more worthy of Michelangelo than of Phidias. "The Theseus and the Neptune," he says, "are stript of all elegance of surface; their feet and hands are broken off; one head is gone, and all that remains of the other is but the rough rudiments of the human face. I am wholly at a loss to conceive on what principle statues thus mutilated and flayed, and of which no one can divine the sentiment, should be declared equal or superior to the perfect and unchanged Apollo" (Belvedere). But our interest is very different as to the sincerity of Sir Joshua Reynolds and as to the principle which is involved in his urgent recommendations to students, "to live on bread and water whilst at Rome" rather than lose the advantages of frequent study of the stupendous greatness of style, the acquisition of an idea of the true dignity of art in the Sistine chapel, "the production of the greatest genius that was ever employed in the arts."

It would really be nothing less than an inexcusable impertinence to offer a single argument to prove the genuineness of the admiration which Sir Joshua Reynolds delighted to express; it is not superfluous to consider to what extent and in what manner his own art was under obligations to sentiments of the gradual growth and development of which at Rome he has left the story on record. Can we, in fact, when we pass in memory from the impressions due to that marvellous ceiling to comparison with what we owe to the gallery of the works of Reynolds,—can we acknowledge,—can we do otherwise than acknowledge,—that an impulse from the very loftiest qualities of those illustrations of sacred story, where inspiration seems to join hands with philosophy in a common world of creative imagination, has really been propagated to our dark and distant island, and is traceable amongst and even pervades a collection of works which are chiefly portraits, and portraits of necessity in very large proportion, of those who of the world are worldly? There is evidently a simpler previous question: it is the question whether the grand style,—that is, whether a truly noble style,—is compatible in any important sense with portraiture at all. It will be an evil day for art when such a question can be decided by humble-minded artists themselves in the negative. Depressing, indeed, must be our predictions for art when its professors shall be content to put their claims, to rank their ambitions, no higher than may be measured by success in giving a moderate and inoffensive relief to the monotony of a blank wall, or, at best, of satisfying uncritical affection with a memorial likeness, or satiating a vanity only concerned to be critical as to moderation in flattery, with what need not be in any true sense a likeness at all. The question whether grandeur of style is appropriate to portraiture is simply a question whether nobility of character can be realised in a portrait, and whether dignified self-respect is an appropriate or indispensable characteristic for the painter himself,—for the painter as a painter. It may depend upon the tone of the epoch wherein his lot is cast, whether a painter is favoured by many sitters whose aspects are true reflections of noble character in any of its numerous gradations. We are certainly fully indisposed to allow, whatever may be the case with the canvasses of our own time, that there is an absolute dearth at present among contemporary and conspicuous men and women, of types which would afford full scope for a genius of the palette. But further,—be it so that an artist cannot always select his sitters,—small blame be it then, either to Sir Joshua or to a successor, if he declines to give permanence to inferior expressions, but is sagacious enough to discern the spirit that is obscured by unhappy accidents and histories of the flesh, and who, while preserving sufficient likeness to the reality, prefers to idealise upon the saving suggestion, and produce a work of refined imagination rather than one of realism, which must be humiliating every way. The destitute of imagination will cry out upon flattery. "He was no doubt a mighty flatterer," says Allan Cunningham. But surely it was better for the painter and for his contemporaries, and for us of a later generation, that he should elevate his model into wholesome air,—into an etherial atmosphere,—than cling to all that was grovelling and gross,—cling as he then only could, in such case, for the sordid reward of journey-work, which he had no real occasion for. That the enthusiasm which Sir Joshua, settled in Leicester Fields, expressed for Michelangelo was genuine to the full extent of his expression of it is not disproved by the fact that he did not do violence to the bent of his genius by devoting himself to elaborate Scriptural compositions, or that he did not reproduce upon canvas the men and women of distinction, fashion, or genius who thronged to sit to him, with the unmistakeable traits of the Prophets and the Sibyls. Not only is the sincerity of his sentiment proved, but its happy reaction upon an admirably-gifted faculty, by the portraits which rise to the full height of whatever dignity or refinement of expression each several subject was susceptible of, whether by direct presentation or appropriate suggestion. What a range of expression lies between Lord Heathfield with his grasp closed over the keys of Gibraltar, and sweet little Simplicity, with her child-hands lying one over the other upon her lap! Between Mrs. Siddons as the Tragic Muse and Puck the Genius of all the complications of comedy "which befal preposterously," how many types of dignity and refinement fill up these intervals in finely-graduated succession! We sometimes wonder whether that generation of "dear dead women" was really so charming and so refined as he depicts them; enviable was the generation if they were so; but if they were not quite so,—or not quite so universally,—as regards our estimate of the painter, what then? Even the tribute of our wonder that, keeping the lofty ideal of his art in view, he could discern not merely what is patent to so many, the marks of character which become coarsely impressed by violence of collision with the accidents and circumstances of life, but the half-blurred traces of that better nature which such untoward interferences more or less check in development, or still more unhappily distort and misdirect to the disappointment of better capabilities and promise.

The spirit of Sir Joshua Reynolds's art is that of his "Discourses," and his "Discourses" have a value which will not be disregarded as gone by by those who will most worthily continue his school,—his English school,—either of criticism or art. The "Discourses" worthily reinforce the impulse which was commenced by Jonathan Richardson, an immeasurably inferior artist, but who wrote of his art in the true, that is, in an unaffected and noble, spirit. This spirit, his book shows, was roused in him by the cartoons of Raffaelle in what he styles "that aweful gallery at Hampton Court," and his book was approved by the ripened judgment of Reynolds, as we know from his biography it had contributed importantly to elevate his early ambition. The editor of an edition of his treatise in 1773, in dedicating it to the President of the Royal Academy, vouches for his approval. "The author has, in his 'Theory of Painting,' discoursed with great judgment on the excellencies of this Divine Art, and recommended the study of it with a warmth approaching to enthusiasm. His ideas are noble, and his observations learned. I am emboldened to say this from a conversation which I had the honour to have with you on this subject."

The learning of the observations is by no means to be despised, albeit conveyed in language which may seem to have the tameness of platitude to the professors and admirers of the superheated eloquence of fashionable criticism; but in the nobleness of ideas lies the charm and the power of the "Theory" as of the "Discourses." Both one and the other work may stand together on the same bookshelf and be taken down from it with the same anticipation of mental and moral satisfaction as another treatise even briefer, but as replete with encouragement of the sons of art to think nobly of art, Longinus "On the Sublime."

TYNEMOUTH.

WE observe that Mr. J. P. Spencer, C.E., the borough engineer of Tynemouth, has resigned, after holding the appointment for more than ten years. The reason stated was, that Mr. Spencer's services are now so much requested in arbitration cases and consultations that he finds it more convenient to give up the duties of borough engineer. The town council expressed great regret, and unanimously resolved not to accept the resignation at present; but to refer the matter to a committee to see if some arrangement could be come to. It is understood that Mr. Spencer was the first engineer to carry out, some years ago, the principle of salt-water works for towns, and the system is now in operation at Tynemouth, where the streets are regularly watered, and sewers flushed with sea-water, which is also connected into many of the private residences in the district.

WITH REFERENCE TO THE IMPROVEMENT OF THE WATER-SUPPLY OF LONDON.

THE electoral struggle, on which the eyes, not only of England, but also of Europe, have been fixed with unexampled anxiety, has for a season diverted public attention from the great question of the water-supply of London. But this question will naturally be one of the first to come, in one shape or another, before the new House of Commons. There are signs in the air that various schemes, if not yet ripe to hatch, are in process of incubation. We have already seen, on more than one occasion, how great is the advantage possessed by those who come forward with a thoroughly-studied subject, over those to whom the study is new. And we are desirous that those who are, after all, the persons most deeply interested in this important question,—namely, the inhabitants and ratepayers of London,—should not again suffer from a surprise.

We are convinced (and shall be able at the proper time to show good grounds for conviction) that so far from the three great requisites of adequacy, purity, and cheapness of supply being conflicting elements, no sound and well-considered scheme can be produced that shall advance either one of these objects without at the same time advancing the other two.

Public works in England, as a general rule, have been hitherto carried out on one of two opposite theories. The one is the theory of monopoly, the other that of competition. Each of these theories has its own advantages; each has also its disadvantages. Under a monopoly the expenditure of capital is likely to be restricted rather than excessive. Duplicate expenditure is avoided; economy is studied; but the public convenience is rarely fully consulted, and scientific and practical improvements are but slowly and grudgingly adopted.

Under the principle of competition this is reversed. The outlay of capital is apt to be wasteful; it is often two or three times the needful amount. Working cost is thus inevitably increased. On the other hand, the public convenience is so far studied as may serve to attract custom to one rival rather than to another. Competition, involving the necessity of studying every source of economy, with a restricted income, tends to stimulate scientific and practical improvement.

Whether either of the two systems most conduces to the public safety, to say nothing of the public welfare, may be doubted. But the general upshot of competition in England, in matters involving much outlay of capital, has hitherto been combination. This method, by which the combatants agree to divide the spoil of the public among themselves, unites the disadvantages of both monopoly and competition, without necessarily securing the advantages of either. Wasteful outlay of capital, wasteful duplication of working cost, have been incurred. And when one competitor no longer strives to divert custom from another, the convenience of the public is likely to be little more studied than in the case of an original monopoly. In fact, the public, under combination, has to pay interest on a double capital.

Are we, then, at the mercy of these two defective theories? Have we no choice but that of monopoly, tempered by competition, till it gives birth to a more comprehensive monopoly?

We are not of that opinion. We are not of those who would fold their hands and cry, "What can we do?" We hold that there is another principle, and that it is the true theory on which the public works of the future can only be successfully carried out. For monopoly, on the one hand, and for competition on the other, we would substitute co-operation.

We may cite an example of the kind of co-operation to which we refer, in the case of the turnpike roads and highways of England before the introduction of railways. Here the State provided the road, and provided it well, and at a moderate cost. Some 130,000 miles of highway, of which 20,600 were turnpike roads, existed in England and Wales in 1873, affording an average length of 2·24 miles for every square mile of the surface of the kingdom. Of the cost no record has been kept. The writer of the article on the Civil Engineers of Britain in the *Edinburgh Review* of October, 1879, estimates that the sum of 160,000,000*l.* barely represents the cost of the highways of England and Wales, and 220,000,000*l.* that of the 197,836 miles of the United Kingdom.

The maintenance of the chief main highways, the turnpike roads, was effected by the travelling public. When traffic is thick this system acts well. When traffic is sparse, it proves an intolerable burden. The abstraction of so much long traffic by the railways, in spite of the enormous impulse which they gave to that traffic, sounded the knell of the turnpike system. The present annual cost of maintenance, exclusive of urban roads, is calculated at 3,200,000*l.* When the traveller is unable to maintain the road, the burden falls on the ratepayer.

In the third place, the actual carrying power was provided by individual effort. Sometimes aid of the nature of a monopoly was afforded to a man of enterprise, as in the case of Mr. Palmer, who introduced that excellent form of mail-coach which was superseded by railways. Sometimes competition ran wild. There was a time when a traveller could be taken from London to Southampton for nothing,—so keen was the rivalry between the opposition coaches. It is true that he had to pay double fare for his return to London. But, on the whole, in spite of various shortcomings, the service of our roads, in 1833, was all that could be expected, so long as horseflesh supplied the motive power and regulated the speed.

Here, then, the fixed half of the "dynamic pair," the road, was supplied by the State, that is to say by the whole country, and maintained either by the actual travellers, or by the potential travellers, that is to say the inhabitants of the locality. The motive power and plant were supplied by individual enterprise; and the public was well served. The inartificial arrangement had in it the true elements of co-operation, and answered accordingly.

We might easily show how the absence of that gentle control, which should so far aid private enterprise as to assure those who entered upon it against unwarranted and unprofitable competition, has strangled the growth of our railway system, and given to our original railway shareholders barely a third of the return received, with lower fares, by the original railway shareholders of France. We might point to the great expense at which the French Government is now redeeming one of its few blunders in the legislation affecting the public works of France, namely, the establishment of a monopoly in favour of the Chemin de Fer du Midi by allowing the directors to purchase the Canal du Midi and the connecting waterways. But our present business is with the water supply of London. Here we have first, partial monopoly; secondly, wild and unregulated competition; thirdly, partial combination; and, fourthly, an attempt at the re-introduction of monopoly.

We do not propose to confine our views to general principles. The matter is of such importance to every Londoner that no amount of labour can be too great to obtain an exhaustive knowledge of the controlling elements. And here, instead of offering estimates of what may or may not be occasions or opportunities for future saving of cost, we propose to ascertain what, in every item of cost, is the minimum that at this time is actually paid over the great metropolitan province. On such accurate details alone can be based any reliable estimate of what we may expect as a future minimum burden on the ratepayer, when the true principle of co-operation shall have been brought to bear on a well-organised system of supply.

We need not now go into the history of the original monopoly of the New River Company, in which his most gracious Majesty King James was a sleeping partner, enjoying a half share. Neither will we now pause to tell the tale of competition warfare, of costly Parliamentary struggles, and of the coalition of opposing interests. We take the supply of London as it now is divided among eight companies of various magnitude; noticing here that a mark of the waste of money incurred by competition is to be noted in the fact that out of the 117½ miles of the metropolitan area, six miles are jointly shared by two companies. In other words, the work is done twice, instead of once, over those six miles, and that at the cost of somebody.

Taking the eight areas which lie outside the disputed six miles, we find the next sign of the wasteful cost of competition in the different ratio of capital laid out in different districts. As it is not our aim in any way to affect the market price of the stock of any company, we shall omit the names while giving the most instructive facts. Over one district, then, in which it may be presumed competition has been but feeble, the sum expended by the water company in providing for the wants of the inhabitants has been 2·17*l.* per head. In another, the tale of Parliamentary conflict is briefly told by the announcement that the outlay of capital has been 5·20*l.* per head. Ranging between these two figures, the average outlay of capital per unit of the population served was, in 1877, 3·05*l.* per head. It may be safe to set down ten shillings per head, or one-sixth of the actual cost, to the account of that legislation which permitted, not to say encouraged, a wanton competition.

The returns now annually made to Parliament of the accounts of the various companies are of value as statistical data. But they are not in a shape—few Parliamentary returns are—to give their full meaning to the reader. They demand, for this purpose, the work of the expert. For this reason they are but little referred to by the press, notwithstanding the important lessons to be deduced from their figures. It has been our study to present some of the outcomes of these returns in a manner that may be readily grasped by every reader; and after consideration, we have arrived at the conclusion that the best unit of comparison to take is the metric ton of water delivered to the householder, or, at all events, sent into the mains of the company for such delivery.

The largest supply of water that has been delivered in the mains of the companies in any recorded year was in 1874, when it amounted to 34·3 gallons per diem per head of the population. This is equal to 56·8 metric tons per head per year.

The smallest ratio of supply recorded was in 1869. It was 31·4 gallons per head per diem, or very nearly 52·1 tons per head per annum. A ton of water per soul per week, in round numbers, is thus an ample allowance, and one from which the departure is not, practically, very great; 37·7 gallons per head per diem for a month together is the highest rate of delivery that we have found recorded. This was in August, 1873; 29·4 gallons per head per diem is the lowest monthly average within the last ten years; that was the rate in December, 1869, and also in December, 1876. It follows that the ton of water delivered is an unusually equable unit for calculation.

Now, if we allow only 5 per cent. on the capital laid out (in works and also in Parliamentary costs) by the various companies, we find that it amounts, in the case of the largest capital outlay, to 1·325d. per metric ton of water delivered; and in the case of the cheapest provision, to no more than ·530d. per ton. These figures do not coincide with the capital cost per head, because there is a considerable variation, amounting to as much as 40 per cent., between the quantity of water per head supplied by different companies. It is probable that this difference closely represents waste; but we give it as it stands. It is worthy of note that the difference between the quantity of water supplied by the companies delivering the largest and the smallest mean per soul, is very nearly identical with that between the maximum and the minimum supplies of the average of the eight companies taken all the year round.

The minimum charge per ton of water incurred for capital in any case is ·63d. per ton, a figure which would be reducible to ·53d. per ton if only 5 per cent. were paid on capital. The average charge for capital is about ·893d. per ton; and the maximum rises to 1·45d. per ton, or within a fraction of the mean total price of 1·475d. per ton charged all round and covering all expenses. But the highest price per ton is received by the company which supplies the smallest tonnage per head; so that this really lucrative return is no doubt in a great measure due to the prevention of waste.

We shall therefore not be very wide of the mark if we allow the price of six-tenths of a penny per ton of water delivered as one which should be regarded as the normal maximum to be kept in view for London for interest on capital. This, however, is without prejudice to a plan for a future extinction of such capital. In round numbers, the actual charge is half as much more, or ·9d. (exactly ·893d.) per ton.

As to working expenses, we must first consider those which, under any system of management, are directly proportioned to the quantity of water delivered in the mains. That, as we have before hinted, may possibly be a very different quantity from that delivered in the houses. These items are pumping and filtering. Their cost is influenced, in no small degree, by the difference of level between the source from

which the water is taken, and the height of the ground over which it is delivered. Thus, while the cost of the two items, averaged for all the water companies of London, is ·183d. per ton, it rises to the maximum of ·234d., and sinks to the minimum of ·085d., chiefly owing to differences of level. There is reason to suppose that, over a certain and a not inconsiderable area, the pumping expenditure might be reduced by a better mode of districting. On the other hand, the cost of filtering ought rather to be increased than decreased. And the due provision for supply under pressure in case of fire is a provision that may enhance the cost of pumping in some cases. We ought not, therefore, to set down this mechanical cost at less than the present average of ·183d., or, in round numbers, two-tenths of a penny, per metric ton of water delivered to the consumer.

Management varies from ·076d. per ton (in two instances) to ·167d. and ·170d. per ton (in two others). The wealthiest companies pay the most for management. The average charge is ·119d. per ton. There does not seem to be any reason why, if the whole system were arranged in the best possible manner, the cost of management should exceed eight-hundredths of a penny per ton of water.

Maintenance, and all expenses but those before mentioned, cost, on the average of the eight companies, ·280d. per ton. The lowest rate is ·209d.; the highest, ·414. The price of ·249d. is the lowest but one; and we may probably be justified in taking that figure, or say ·25d., as a normal price under a perfect system of management.

We thus have the following elements of cost as they may be ranged under the system of monopoly, competition, and scientific co-operation:—

Cost per Metric Ton of Water.

	Government Bill.	Actual.	Possible.
Dividend and interest	1·500	·900	·600
Pumping and filtering	·200	·200	·200
Other working expenses ...	·255	·255	·250
Management and collection	·120	·120	·080
	2·075d.	1·475d.	1·130d.

The decimals of other working expenses are, it will be seen, reduced by our taking the other items in round figures.

We have here before us, far within the limits of practical accuracy, a conspectus of the cost at which a ton of water may be delivered to the consumer over the metropolitan area. The actual average price of three-halfpence cannot be considered as exorbitant. It should be noted that the supply per soul delivered by that company which has some 60 per cent. of its deliveries under constant service is 4 per cent. below the average,—and that in spite of a large consumption for trade uses. And we cannot call too much attention to the fact that it is only on the principle of co-operation that an attempt is likely to be made to reduce both quantity delivered and price per ton. As matters now stand, only about one-seventh of the cost of water to the public is affected directly by quantity. As much capital, as much establishment, as much cost of every kind, except pumping and filtering, or, at least, almost as much, is incurred in the delivery of the 29·4 gallons per head per diem of the winter as in that of the 37·7 gallons per head per diem of the summer. If companies are paid by charge on rental, they will seek to deliver as little water as possible. If they are paid in any way by metric tonnage, they will endeavour to deliver as much as possible. Their interests, in this particular, are not identical with those of their customers.

As to the manner in which the principle of co-operation is to be brought to bear on the arrangement of these complicated interests, we have no space now to enter into the investigation. But we may point out the existence of the elements of co-operative success. First, there is great, certain, and increasing demand. A sound scheme has this sound basis. Under any conceivable circumstances the Londoners are able and ready to take, and to pay what is necessary for, let us say, 26 metric tons of water per head per annum. This is an ultimate fact, and on this fact, not strained, but duly regarded, all calculations must be based.

Secondly, we have the State to a certain extent already concerned in the affair. The State has conceded certain rights, which it is bound to respect where the conditions have been observed. The State must be the arbiter of what is to be done when those rights have reached their limit.

Thirdly, we have a vast machinery, already provided by competition, the utilisation of which will be made more advantageous by substituting the principles of co-operation. It is obvious, to take a single example, that nearly twice as much money must be spent in supplying water to those six miles of area which are jointly supplied by two companies, as would be the case if they were supplied only by one. In the same way any attempt to introduce a new competing means of supply, instead of controlling and consolidating the existing ones, can only end, if it have any success, in laying the burden of extra capital outlay on the ratepayer. It is mainly in that districting by zones of level, which must form a part of any real improvement in the hydraulic arrangements of the London water supply, that, as we have seen, economy is to be effected. At the same time, we regard one chief advantage to be the means of obtaining a perfect control for the extinction of fire.

Again, as to the source of supply. Even apart from any question as to the water of the Thames, the sources of the deep wells at Deptford, at Plumstead, at Charlton, at Crayford, at Shortlands, and at Belvedere; of the Chadwell spring; of the wells at Ware, Amwell, Cheshunt, Hoddesden, and Wormley, and of the river Lea, are acquired to London, and must form a part of any future system of water supply. We have before indicated the green sand underlying the valleys of the Wey and of the Mole as a future source of ample supply of the very purest water. The rainfall over the Wey basin alone amounts to nearly five times the entire annual consumption of London. Not a third of that runs through the channel of the Wey. Much of what is not evaporated must thus make its way through the pervious subsoil to the valley of the Thames. In 1828, Mr. Telford reported to Parliament in favour of the utilisation of the waters of the Ver and of the Wandle. Long familiarity with the district leads us to add the names of the Gade and of the Chess. With sources of supply like these at command, it is worse than idle to talk of saddling the ratepayers of London with prodigious works for tapping the cradle of the Severn or of the Wye, with the result of doubling the present charge for interest on capital,—interest which, one way or another, has to come out of the pocket of the ratepayer.

By due co-operation of the State, the companies, and the consumers, we are convinced that it is possible to give to London a constant supply of pure water at a working charge of less than six-tenths of a penny per ton, exclusive of interest on money; and further, by judicious forethought, to extinguish the cost of the capital within little more than half a century, without any increase of the present burden on the ratepayer.

THE THEORY AND PRACTICE OF INSPECTION.

EVERY now and again events of great contemporary interest occur that remind us of the manner in which certain well-known institutions have been affected by the changes of modern life. It is when we are called upon suddenly to realise the bearing which an altered state of things has upon the various interests depending on it that facts which had become almost so familiar as to escape notice rise into prominent relief, and afford the means of identifying the great discrepancies between an old and a new *régime*. In the world of building there is no institution of greater antiquity than that of the inspector. It would probably be necessary to carry our investigations beyond the period embraced under the three ages of the world before we could come upon a time in which the inspector was not. Even in the golden age, when the necessity for his services did not arise from any moral obliquity on the part of contractors, an apology for his presence was probably to be found in the advantages to be derived from his superior skill. When the world had ceased to be perfectly conscientious, and the age of bronze succeeded to the age of innocence, additional reasons, no doubt, occurred to the minds of those who employed labour, why inspection should form an important element in their enterprises; and certain it is that in this age of iron the inspector is as much in demand for his ability to detect dishonesty as for his skill in the particular handicraft of which he is supposed to be master.

The two principal features of an inspector's duties, so far as the interests of his employer are concerned, may be divided into two classes, the one of which refers to the quantity and the second to the quality of the work which he is called upon to superintend. We put the two classes in their relative positions advisedly, not because it is the one which ought to hold good, but because we fear it is the one that is only too characteristic of the century in which we live. There are few masters who can afford to reverse this order, and place quality before quantity. The race for wealth has been aided by the introduction of machinery within recent years, and additional facilities have been given for rapid production at the expense of more solid advantages.

Making due allowance for all this, however, there is every reason to believe that, except under the influence of strong artistic sympathies, human nature has been pretty much the same in all ages, and that the duties of the inspector have been always devoted more to the features of his occupation that affected his employer's purse than to those which were bound up with his reputation. Even in the days of the Ptolemies, or rather long previously to the existence of their dynasty, how many centuries we do not remember, the tendency was in the direction of cheapness. There can be little doubt that the sun-dried bricks of the Nile, the making of which afforded occupation to the descendants of Abraham, would have been greatly improved by the addition of a little straw. Perhaps the narrative, if it ever comes to be written *in extenso*, will include the biography of an engineer who had a patent process, or rather a process which would have been patented if he had lived in the nineteenth century, but who found it difficult to overcome the prejudices of his labourers. The advantages of the system, as well as its practicability, having been explained to the king, perhaps accounts for his having insisted upon the bricks being made without straw, and perhaps, for all we know to the contrary, he may have been justified in his attempt to introduce a meritorious but unpopular innovation. However this may be, there is ample evidence of the existence of inspectors in those early days, and, judging from the vastness and perfection of Egyptian buildings, they probably formed a numerous and painstaking profession. At that period, and for many centuries afterwards, there is every reason to believe that the theory and practice of inspection had not become alienated from each other as they are with us at present. When an inspector was told off to look after a gang of brick-makers or masons in the time of Cleopatra he was doubtless able to accomplish his task in so far that the number of units whose work he had to inspect was not outrageously in excess of what it was possible to superintend. Unless this were so there was little need for an overseer. The practice, if it were to embody the theory at all, required to be limited to a reasonable number of workmen as the object of attention. Nowadays, in many important departments of inspection, all this is changed, and the work of an overseer in the ordinary sense of the term is impossible. The theory of inspection, nevertheless, remains. Even when the practice has ceased to be practicable, owing to the very small ratio of overseers to the total number of workmen, the name of inspector is retained; and in order to justify his title a system has come into vogue which is supposed to fill up the discrepancy that exists with regard to the theory. This element is responsibility. An inspector undertakes responsibility far in excess of that which is justified by his opportunities for protecting himself. If a man knows his business thoroughly, whether it be that of a mason or a carpenter, unless he is the victim of more than ordinary fraud or cunning on the part of the workmen whose work he is inspecting, he can quite conscientiously assume a large share of responsibility with regard to the result. But this entails the necessity of proportioning the number of hands to the possibility of their work being fairly superintended. Without this the whole system falls to the ground, and the responsibility, however lightly it may be assumed, does not really come within the meaning of the term, inasmuch as the conditions which are necessary to its existence are partially or altogether wanting. Another curious feature of the modern system is that in cases in which the word has really lost its true meaning and

significance, the danger to which the person assuming the responsibility exposes himself is supposed to be counterbalanced by the payment of a salary proportioned to the risk. All this is not practical, and so it has come about that much of the work of inspection is carried on in a purely theoretical manner.

These remarks apply more especially to that department of State which immediately concerns itself with the affairs of trade, and it is to this that we wish to draw the attention of our readers. The Board of Trade as at present constituted is one of the institutions which have grown directly out of the vast social revolution which took place in this country after the successful introduction of the steam engine. The reasons that called it into existence and that still operate to make it necessary, would of themselves form a most interesting subject of inquiry and of contemplation. We can only glance at these very shortly, and we do so because they bear directly on the theory and practice of inspection.

As already stated, the duties of the inspector may be divided into two classes, one of which refers to the quantity and the other to the quality of the work which he is called upon to superintend. In many cases the issues at stake in questions of the quality of workmanship are of the greatest significance, and often include the safety of great masses of the community. The mode of locomotion embraced under the railway system contains the elements of a wholesale destruction of human life if conducted in a manner that conflicts with the laws of nature. There can be no doubt that it was a very reasonable desire on the part of the travelling public to be protected from the dangers of the railroad that led to the system of inspection which is part of the function of the Board of Trade. The same principle was at work in the case of those who travelled by sea, and led to the introduction of a similar method of supervision with regard to ships, more especially after they began to be built of iron, and propelled by engines entailing the use of apparatus that required great forethought and good workmanship to render it safe. In the early days of the locomotive and the steamship there was an element of conscientiousness on the part of those who were principally concerned with their introduction that made the duties of an inspector comparatively easy. No one can associate the name of James Watt with bad workmanship, nor that of George Stephenson with a preference of quantity for quality; nor that of David Napier, with a desire to make money at the expense of his reputation as an engineer. The pioneers of our modern systems for obtaining the services of nature for the use of men were much more anxious to turn out good work, and much better able to see that it was done, than any number of inspectors. As the labours of these great men began to bear fruit, those who joined the army of mechanical inventors continued for a long time to carry out the traditions of conscientiousness, which was a distinguishing feature of the class to which they belonged. But before long others became the depositories of important information bearing directly upon questions of design and upon the safety of the travelling public. The mathematician and the chemist had something to say that was necessary to be listened to. However conscientious the labours of the practical engineer might be, they required to be supplemented by a great amount of scientific acquirement. It was at this juncture that a most important and useful work was performed by the inspecting departments of the Board of Trade. Without dictating anything with regard to the design of a bridge, or the model of a steamship, they were, nevertheless, quite justified in demanding, on behalf of the public, that neither of them should be built in flagrant opposition to the laws that regulated their strength and stability. Nor has any objection ever been made to the principle involved in this action. As a matter of fact, the rules of the Board of Trade, with a few exceptions that only help to prove the rule, have had the effect of greatly assisting practical contributions to the sum of our national industries. There is no shipbuilder but has been indebted to the tables of scantlings provided by the Board of Trade as a ready means of meeting the demands of his customers, and few civil engineers but will readily admit the convenience of complying with the regulations in regard to the construction of railways. The enforcement of this system is comparatively easy up to a certain point. The practice and theory of inspection are so far at one that an inspector of the Board of Trade, long accustomed to the work, may readily detect any breach of the regulations, whether it be in a railway bridge or a steamship; but here the efficiency of the system must necessarily include an element of conscientiousness, both on the part of the contractor and the workman. In structures that depend for their stability upon rivets, the failure of a few of these units of strength may entail the destruction of an immense fabric. To suppose that the inspectors of the Board of Trade, whether in the marine department or that which is concerned with railways, are personally assured of the strength of every rivet that comes theoretically under their consideration, is ridiculous. This being the case, it becomes of the utmost importance to maintain that standard of conscientiousness on which not only the safety of the travelling public, but the reputation of our country among the world's industries so completely depends. As the years separate us from the great traditions of the past, on which the foundations of our commercial success were laid, it is to be feared that the race for wealth may undermine our good name; but certain it is that no amount of inspection will ever be able to supply the place of honesty of purpose on the part of our contractors and workmen. The recent exhibition of a distinguished inspector of the Board of Trade giving evidence with regard to a structure that had failed, is a sufficient commentary upon the state of inspection as it stands at present. There has hitherto been no practical necessity for filling up the gap between what an inspector can do and what is beyond the powers of any human being to accomplish. The high standing of the men who have hitherto constructed our railways has been a guarantee that what was understood to be done in the matter of workmanship really existed. Supposing General Hutchison had been able to devote three weeks instead of three days to the inspection of the Tay Bridge, the time would have been altogether insufficient to assure himself of the strength of all the details of that ill-fated structure. If those concerned in the construction of our railways are not to supply the element of honesty, which is a necessary condition in every species of handicraft, then in the future a totally different system will require to prevail. A swarm of inspectors will be required, with all their attendant evils, to fasten upon every enterprise, and absorb more money in salaries than the promoters could possibly save by the utmost ingenuity of cheeseparing.

FURTHER NOTES ON ACADEMY PICTURES.*

THROUGH the vista formed by the doorways, the visitor, while still in Gallery II., can see across, on the wall of Gallery IV., a vision of a sunlit sea, which, even at that distance, attracts notice; on entering Gallery IV. we find this is Mr. Brett's wonderful painting entitled "Britannia's Realm," purchased by the president and council under the Chantrey bequest. This is simply an expanse of water, slightly rippled by a summer breeze, and catching various tints, as it recedes from the eye, from the reflection of summer clouds, making those "zones of light and shadow" which Tennyson has noticed in one of the most charming of his lighter poems. Scattered about at various distances are a few ships, mostly either of the "H. M. S." or of the yacht class (this concatenation of craft suggesting the Channel as the scene), which serve to assist the scale and perspective. A critic wanting to pick a hole in the work might possibly find his opportunity in the clouds, which, as in some others of the artist's productions, seem a trifle too regular, and not quite vaporous enough; as to the rest, all that can be said is, that the picture seems to reach the utmost possible limits in the power of paint to reproduce nature. Not only does it impress us with such reality at the first glance, but the further study of the details,—the evanescent shadows and gleams on the water, the sit of the ships on its surface, and their broken reflections,—produces almost an optical illusion, and we half fancy we can detect the slow movement of the vessels over the calm surface, and feel a conviction that if we could only get a boat into the rooms and launch it through the frame we could pull up to and get on board one of them. Mr. Brett has another painting in Gallery VII., "Sandy Shallows of the Sea-shore" (669), nearly as real as this, only not so inspiring a subject. This is, again, a calm bright day, and the quiet twisting ripple of the nearly calm water on the level sand is wonderfully true. It is curious to see the painter of such pictures as these as an outsider at the Royal Academy exhibition, which is supposed to represent the best art of the day, and to compare them with some of the productions of men who have the mystic letters after their names.

Among other works in this gallery (returning again to the order of numbering), Mr. Hargitt's "The Tay from Kinnoul Hill" (337) is, if not a remarkable landscape, a fine and effective one, interesting as a kind of reminiscence of a style and feeling which belongs to an older school of English landscape-painting. Sir John Gilbert's "Evening" (365) is a fine bit of effect, but a finer landscape than either is Mr. Mark Fisher's more every-day subject, "The Home Paddock" (381),—a landscape which shows how a simple subject can be raised to a high level of interest by powerful treatment, combining, as this does, realism of effect with breadth of style, and a true perception and rendering of the essential character of such a scene. Mr. J. D. Watson's "Corporal Trim" (375) is a study showing much thought and feeling: it illustrates a passage in which the author foresees Trim preparing, at some future day, to follow the funeral of his master. The face is full of feeling, without a touch of exaggeration. Whether we admit it as an adequate representation of Trim is another question, on which it would be difficult for a painter to give any general satisfaction. Every one has formed his own idea of the Corporal, and will be slow to take up another; but the painting is, at any rate, a very valuable and interesting contribution to Shandean illustration. Mr. J. B. Burgess, who seems to keep up to the mark of his recent success, has a happy hit in "The Professor and his Pupil" (431), and there are two fine portraits in the same part of the room, Mr. Wirgman's "Mrs. Charles Holland" (432), and Mr. Ouless's head of Cardinal Newman (438); the latter a remarkable work, especially in the extremely subtle expression of the lips; the face is full of tragic mental history, and the artist has well felt and expressed this. Mr. Rudolph Lehmann's brilliant portrait of "Mrs. Leith" (411) may be mentioned, and (better) Mr. Collier's "Mrs. Gillum Webb,"—a very charming out-door portrait of a lady in white, backed by foliage and a brick wall, and with a sweet expression of face very delicately rendered. Mr. Long's portrait of "Mr. Irving as Hamlet" is hardly satisfactory, and not like Mr. Irving. Miss Starr's "Miss Bostock" is a very pleasing and effective portrait.

Gallery V. contains two large battle-pictures hung as pendants, though of very unequal merit. That of Mr. Crofts (459) is rather an after-battle picture, representing Marlborough riding over the field to look at the trophies after the battle of Ramillies. Marlborough is an admirably characteristic figure, sitting on his horse as if on a throne of State, and looking about him with a nonchalant indifference to the shouting of the soldiers, his handsome but sensual face strongly expressive of the vanity, self-reliance, and heartlessness which formed the prominent features of his character. The figure, as well as those of the soldiers, seems thoroughly to belong to the period; the whole picture seems very carefully studied in regard to character and accessories. Mr. Woodville's picture of "Blenheim" (453) has spirit and dash, but is a very rough performance. Mr. Eyre Crowe is not happy in his drawing-room subject, "Forfeits" (448), which is hard and glaring, and does not tell its story well. There is meaning and talent in Mr. Robert Herdman's picture of "Charles Edward seeking Shelter in the Home of an Adherent" (442); the painter has been at some pains to realise the real facts of the incident and the character of the actors in the scene, with considerable success,—a success which is the rather deserving of comment, considering the great scarcity at the present moment of what used to be called "historical painting," which seems nearly neglected for less ambitious and perhaps we may say easier subjects. This Gallery, however, is the best off in this respect, for on the opposite wall is another painting of the same serious class, by Mr. Andrew C. Gow, "The Last Days of Edward VI.," representing an incident described in a letter quoted in Mr. Froude's history, the young king in his last illness lifted to a window, at Greenwich, where he could be seen by the people, who had been possessed by a rumour that he was already dead,

* See p. 561, *ante*.

but "in such a plight, so weak and wasted, that the people said it was death": and so it appears in the picture. The figure of the poor young king is very pathetic, and there is a general interest in the whole group, each of whom plays his part well in the scene, even to the pet grey-hound who licks his royal master's drooping hand. Among other works of interest in this room are a capital portrait of Mr. Luther Holden, by Mr. Millais (497); a work by Mr. Sidney Cooper a little out of his usual line, entitled "Clearing Wood for the Iron Way,"—a railway-making scene; "A Nook in Nature's Garden" (460), a study of a foreground of wild flowers and undergrowth, by Mr. Aumonier; "A Recess on London Bridge" (479), by Mr. A. E. Mulready, where the interest centres in a sad figure of a houseless wanderer crouched beneath the parapet (in order to make a distance, the painter has, however, brought in the Houses of Parliament and Westminster Bridge in a manner in which they cannot possibly show from London Bridge); "The Silver of the Sea" (506), a brilliant and broadly-painted coast scene by Mr. Colin Hunter, in which the title is suggested by the glittering heap of newly-netted mackerel on the beach; and a very admirable landscape by Mr. Wyllie, "Littlehampton" (487), where the low-lying and irregular outline of the little seaside town is seen over a level expanse of corn and stubble fields pervaded by a warm golden light, the sails of ships intervening in the middle distance, though the water cannot be seen; this, though very quiet and unpretending, is an unusual work, possessing a good deal of originality of style. Mr. John Morgan's crowded scene outside a court of law, after a trial for "Breach of Promise of Marriage" (607), will hardly please his friends nor do him any service; there is a good deal of work in it, no doubt, but it is an essentially vulgar picture of a hardly possible scene.

There seems to have been an intentional grouping of certain classes of works this year, for Gallery VI. is especially the place to study some of the best pictures which represent not so much "landscape" in the wider sense as studies of certain aspects and details of nature. The first in the room is Mr. Ernest Parton's work, entitled "A Bank of Poppies" (513), a landscape with distance and extent, certainly, but in which all the interest is centred, as the artist's title denotes, in the foreground; it is hung too high to be very well judged of. Another and more important work by the same rising artist occupies a central space on one of the walls, "The Last of October" (578). This is mainly a fine and beautiful study of the delicate ramification of birch trees which have already lost nearly all their foliage, and look more graceful than ever with the silvered stems and long disparting lines of branches; these make the picture; there is sufficient in the rest of the landscape to fill up the scene, but no distance; it is essentially a foreground picture. In a kindred spirit is Mr. Walton's "Down in the Reeds of the River" (529), one of those secluded nooks of tangled vegetation which have such a charm of their own, and seem to reach the extreme of seclusion and remoteness from the world. A little further on is a landscape in a very different style, "Tintagel Castle" (535), by Mr. Gilbert Munger, a painter whose name we do not remember before, but which we are likely to keep in mind, if he is able to do more such work as this. It is a scene taken from a low point of sight, amid hills with bright sunlight catching and spreading over the prominent parts of their folded grassy curves, the finest thing being the light on the bit of hill on the left, the slope of which is interrupted by the ruined castle, and which we catch again, higher up in brighter light, given with great truth and force of aërial effect. Mr. Heywood Hardy's small work "Duty" (528), where a minister of the old school, in shovel hat, is riding slowly and rather unwillingly across a common in the face of a coming storm, is clever and effective. Among the landscapes is the best of Mr. Colin Hunter's, who seems to be making a style of his own, "Iona Shore" (572). The style may be described as that which Constable might have shown if he had been a seaside painter, very rough, free, and powerful, perhaps a little too rough, but, nevertheless, a fine thing. Mr. R. Barrett Browning, the son of a poet and poetess, shows singularly little poetry in his painting. He gives us the aspect of a tan-yard at Dinant (585), but not with such high finish as to make the realism an object *per se*, and beyond the realism there is nothing. It is a tan-yard, and a man looking into the tan-pit, and *voilà tout*. What will the reader guess to be the subject of a work entitled "Thursday"? He would probably have to guess for a good while. It is a set of monks catching fish in the abbey stream for fast-day, and very clever and humorous it is as regards the figures and the school-boy interest they take in the work; but why do not painters get their architecture up better? If Mr. Dendy Sadler, who paints this scene, imagines that any monks in the Middle Ages worshipped in such a Tunbridge-ware church as he shows in the distance he is very much mistaken.

The whole of one side of Gallery VII. is occupied by Mr. Val Prinsep's great canvas, representing the "Imperial Assemblage," held at Delhi, by the late Viceroy of India, concerning which we will only say that it is very big, and somewhat glaring, that the numerous figures of Eastern potentates may be good likenesses for all we know, and that its production involved great labour and pains, but that the picture has no business to be there at all. It has taken up the wall space of thirty or forty ordinary-sized paintings; it is an official picture of little artistic interest, and a separate place of exhibition should have been found for it. The space that is left in the room contains some excellent works. Mr. Watts's portrait of "Mrs. F. Myers," a young and very pretty woman's head half-embedded in rhododendron foliage as a background, is a beautiful specimen of effective portrait-painting. In a quieter and more matter-of-fact way Mr. Leslie's two portraits of "The Misses Andrews" (606, 616) are very pleasing, and contrast well. The sea is rather prominent in this gallery. The President is in appropriate form with a sea-side lady, who sits on her clothes with her back to the spectator, and for which the profane critic of *Punch* has suggested the title "No Bathing Machines." In reality, the picture is simply a study of the back of a female figure, entitled "Psamathe," inasmuch as she is seated on the beach (ψάμαθος,—more literally "the sea sand"); for all Sir F. Leighton's titles to his figures have a meaning, though they seem to be Greek, in a double sense, to some of our contemporaries. The painting is a fine one in its way, but it is rather a studio picture than an exhibition one. Mr. Shaw's "The Ebb Tide on the Bar," is a fine and carefully studied sea-painting, which looks rather significant, perhaps, as a kind of protest against what may be called the "subjective" manner of painting the sea which some of our best sea-painters have carried a little too far, painting it as it appears to their minds, or as they think it ought to appear, rather than as it seems to average mortal eyes. Which is the truer art is, no doubt, open to question; but it is not a bad thing to see a purely objective painting of rough sea for once, to remind us that such a thing is possible. Mr. E. Waterlow's large "Spring" picture (607) has a very spring look, but is not otherwise interesting. Mr. Otto Weber's "A Hot Day" (612) is an admirable cattle-picture and a pleasing landscape (near Cookham), but he does not make the heat evident to us. Two admirable domestic subjects may be contrasted in this room; the first is Mr. Fred Morgan's "Apple Gathering" (621), a scene in an orchard, excellent in the style of handling the landscape, but still better in the figures, each of which in attitude and countenance is a separate study, and has marked individual character, while all are connected naturally with the incident of the scene. The other is M. Munkacsy's wonderfully brilliant production, "The Two Families" (650), a scene in a room crowded with "articles of bigotry and virtue," painted with the greatest force and glitter, where the children are congregated to see the family of puppies having their breakfast out of a saucer: the expression of the nurse who holds the baby, and of the child standing by and looking eagerly at the dogs, are admirably true; yet we feel that few people among those who take their pictures seriously would care to possess this; with all its cleverness, it is so entirely superficial in its style and interest.

The lecture-room does not possess many objects of interest; there is a very good coast scene by Mr. H. Moore (973), with a remarkable effect from the under-lighting of the clouds by a low sun (not seen in the picture). Mr. Seymour Lucas has painted a rather large work representing the celebrated game at bowls when the advent of the Spanish armada was announced, and Drake said there was plenty of time to finish the game and beat the Spaniards afterwards. The figures are all portraits of Elizabethan worthies, with a key sketch underneath, and in this way it is a valuable work; but we fear this kind of attempt is apt to cramp an artist's powers, and we must say that Mr. Lucas has done much better things. "Gratitude," by Mr. John Burr, is a clever and amusing picture of an itinerant musician and his little daughter giving a tune and a dance to the inhabitants of a college in return for rest and refreshment; the interest of the audience is very well expressed. Among pictures of the same type may be mentioned Mr. E. Hughes's "Old Friends," Mr. Arthur Stocks' "An old-fashioned Child," Miss Ellen Clacy's "The Shadow in the Home," and Mr. J. R. Dicksee's "Freedom," the latter a pathetic work in meaning and feeling, representing a poor, overworked seamstress who has gained temporary freedom by dropping asleep over her task. Mr. B. Riviere's "Last Spoonful" is a capital picture of dogs and ducks; there is something quite Landseerish in the expression of face of one of the dogs, who looks anxiously after the fate of the spoonful. Mr. Carter's "Timber-hauling" (1061) is noteworthy for the go and spirit of the horses. Mr. Charles Green's "The Girl I Left Behind me" looks as if it were meant for a serious pendant to Hogarth's "March to Finchley." There is much cleverness in it; but we cannot say it interests us very much.

Gallery X. is glorified by two beautiful works by Mr. Alfred Hunt, hung on either side of the doorway, "Motes in the Sunbeam" and "Unto this Last"; the former a view in a wooded glen, the latter a twilight scene from the old churchyard overhanging Whitby, with the town lights showing dimly through mist below; it is further illustrated by the line from "Comus":—

> "Above the smoke and stir of this dim spot
> Which men call earth."

As usual with this really great landscape-painter, the two works, both complete in themselves, are as distinct in feeling and manner as the scenes in Nature itself; in this respect what a contrast to the majority of even the best landscape-painting of the day, where we know the artist's manner at once and the look of his pictures at a distance. Mr. Jas. Hayllar, who, though not a remarkable painter or a man of genius, always impresses one pleasantly, has perhaps never exhibited anything so good as his picture this year of "A Deputation of Villagers presenting a Wedding Gift"; the "deputation" are very amusing, especially the hale and benevolent-looking old man in the smock-frock, and there is much refinement in the figures of the lady of the house seated in state, and her fair daughter who stands holding the present in her hand and listening to the schoolmaster's speech with a pretty mixture of dignity and shyness. Mr. J. G. Brown's small work, "The Passing Show," is a very clever little thing, in which the interest consists entirely in the varied expressions in the faces of five boys who are supposed to be looking at some spectacle of the kind indicated by the title. Mr. Joseph Clark's picture, "Inasmuch as ye have done it unto one of the least of these" (1440), has admirable work in the study of the figures in detail, but the action of the whole scene rather wants point and concentration. Mr. Clark has not yet equalled his "Early Promise," but the deficiencies of the present work are such as more thought and consideration may avoid in future.

We shall consider the sculpture in a separate notice.

GROSVENOR GALLERY.*

THE upper end of the East Gallery is occupied in the centre by a large work by Mr. Burne Jones, "The Golden Stairs," which are not golden materially, being simply a flight of winding stone or marble stairs without rails, but in regard to their occupants, who may be supposed to be, in the phrase sometimes applied to young women, "as good as gold." Seriously, however, this is a very sweet and harmonious composition, consisting of a procession of girls all clad in white, with skirts short enough to show their fair feet and ancles, and of some material which falls into long parallel sculpturesque folds following the movements of the body. Their attitudes are happily varied while all tending in one direction; a few hold old-fashioned instruments of music, and the procession makes towards an open door through which the pipes of an organ are visible. We should like to hear the hymn they will sing

* See p. 562, *ante*.

when they arrive there,—something old-world, clear, and unimpassioned, like Palestrina's church music, we can imagine it would be. As usual with the painter, the faces are all of one type, but there is not such absolute repetition of features as we have frequently found in Mr. Burne Jones's collections of ideal women, nor is there that sad weariness and melancholy which is often almost painful in its impression; the impression of the whole is dreamy and unreal, but not sad; it affects us like some strain of quiet and graceful music, with not much meaning in it, but such as we could listen to for a long time, in a mood of pleasant musing, without desiring it to close or change. There is a defect in the manner in which the limbs are relieved against the stairs behind them by a narrow line of shadow which at a little distance gives the effect of a hard outlining somewhat disagreeably; but in the main this is to us one of the most pleasing and successful of its author's productions. On the east wall of the room Mr. J. W. North, whose water-colours in the Society's Exhibition we have noticed, has a large work entitled "The Grass of the Field," in which the same brilliant effect of scattered blossoms in the foreground is the main object of the work; in its way it is very charming, but wild flowers do not in nature appear in this manner, with this distributed and decorative sparkle. His smaller painting, "Algerine Afternoon," has much more of nature in it, and conveys a strong impression of truthfulness in regard to local character, tone, and light in the scenery. Mr. Hennessey's pretty fancy, called indeed "A Spring Fantasy," is also utterly unreal, though brilliant; the peacock which figures in the centre of the canvas is of alarming spread of tail, as in his other work in the west gallery, "A Visit to the Peacock," which might well be visited if its tail had reached to such a long perspective as that. A painting of hawthorn, "May," by Mr. Muckley, is splendid in the light and glitter of the light white blossoms, the details of which are most delicately given. Mr. A. Moore has two small companion works, "Jasmine" and "Roseleaves," in each of which the main object is a somewhat rosy damsel in diaphanous lawn, who, in the first painting, is in heavy slumber on a seat in rather an inelegant attitude; in the second is waking and stretching herself,—that, at least, is the effect produced on the spectator. These are not equal in their beauty of figure to others by the same artist, and where works are so absolutely without meaning beauty is *de rigueur*. The colour effect is, of course, very pleasant and harmonious, but the possibility of getting tired of this kind of thing has been borne in upon us by even better works of Mr. Moore's than these. Mr. Crane's "Truth and the Traveller" is a style of art that is only fit for decorative representation on tiles, or some medium of that kind, and would not please any one very much then; this presentation of fable or allegory as pictorial fact,—this thin and ungainly female sitting naked on the dwarf wall of a well,—rather provokes a smile than adds any point to the allegory. By the way, we thought "Truth" was at the bottom of the well, not sitting on the coping, and, in the present instance, we could very well wish her there. The work might, in fact, be passed over as an entire mistake, only it is such a vexatious sort of mistake that one cannot help protesting against it. Allegory is a doubtful good even in poetry; for painting it is almost always unfit, and leads him who follows it to almost certain grief. Mr. Crane was employing his time and talents much better when he painted the two small landscapes at the other end of the room, which have real beauty.

Sir Coutts Lindsay's "Evening" is a good specimen of what may be called a half-decorative allegorical figure. It represents a female figure in profile, carrying a torch, and clad in a mantle of rich but subdued tones, with a mass of dark hair floating behind her shoulders. Signor Costa's "Mrs. E. Balfour" is a pretty but stiff portrait, rather affecting archaism. Mr. John Collier's portrait of Lady Ramsey of Banff is a somewhat hard but carefully-modelled study of a face with a good deal of force of character about it. Mr. Richmond's portrait of Lord Lyttelton is rather satisfying than remarkable; a well-painted and harmonious, but somewhat characterless work. In strong contrast to this are two portraits further down the room, that of Lord Stratford de Redcliffe, by Mr. Herkomer, a portrait full of earnest expression in an aged face, which still retains all its keenness and energy; and that of "My Parents," by M. Bastien Lepage. This is an almost amusingly frank picture, for "My Parents" are certainly not very distinguished-looking people, and their rather plebeian peculiarities of countenance and attitude are given with a conscientious fidelity which seems hardly filial duty, though it is, no doubt, artistic truth. The work, we must say, is not an agreeable one in any way, though exceedingly clever. Among the other pictures on this wall, Mr. Macbeth's "Flood in the Fens" challenges attention by its size and eccentricity; but this is all. The figures are like no people in real life; their countenances are productions of the painter's manner. Mr. W. B. Richmond's "Song of Miriam" occupies the centre of the wall, and is unfinished, as, owing to circumstances not mentioned, it could not be exhibited later. The figures, however, are complete in drawing and modelling. It is what critics in the good old days used to call *chiaroscuro* that is wanting. There is a great deal of very good figure-drawing in the picture, and a very effective arrangement of the whole, so as to keep the character of a kind of procession, and yet obtain variety and interest in the movement, the crowd dividing themselves into three main groups,—those in the further plane of the picture, some of whom carry a large mummy aloft as a piece of spoil; another group, who ascend from a small ravine in the centre, mostly men carrrying caskets of jewels and other "loot"; and in the centre of the foreground Miriam, with the women who follow her, and whose group extends away over a high bank, as far as the extreme right of the picture, the movement of the whole being from right to left of the spectator. Granting for a moment the historic reality of the event, it must be felt by all who try to realise it that the painter has not succeeded in this; it wants reality and intensity. The groups of men are, indeed, very different from the sort of conventional people we commonly see in pictures of Biblical subjects; they are men who are thin from long toil and oppression, and not "Bible picture" figures; there seems every effort also to realise something as near historic propriety in the accessories of the picture as the knowledge available for us now will admit of. We do not, however, see the Hebrew cast of countenance very strongly marked. But the Miriam is a tame propriety Miriam, and her maidens equally so. Imagine what sort of irrepressible person Miriam "the propheteess" must have been in those early days, and among a half-civilised people, and consider the supposed circumstances also, and we should have figured Miriam a half-wild figure, carried away in an ecstasy that would almost border on the grotesque, instead of this decorous figure in the attitude which has been proper to all Miriams since painters have painted the subject. It may be admitted, however, that the proprietor of the picture would in all probability not have been so well satisfied with such a treatment, more especially if it happens to have been painted for a descendant of the tribes who followed Miriam in her song; so that it is very possible the painter could hardly have done otherwise than he has, if he had been so minded.

Mr. Boughton's rather large painting, "Omnia vincit Amor," a landscape in which a young knight, whose horse is held in the distance by his squire, is courting a ragged lass in charge of a drove of pigs, is not satisfactory; the large tree-trunk in the foreground is shirked a good deal, and the figures uninteresting; the distant landscape redeems it. Mr. J. Parker's "Field Pea Gathering" is a more important work of the school of which Jules Breton is the inventor; the foreground is a very carefully studied bit of vegetation, and the nearer group of three girls is very interesting; the figures are happily grouped, and there is dignity and character about them without any departure from the genuine rustic model. They serve to illustrate the defect of Mr. Macbeth's rustic figures in such a picture as the one we alluded to just now; the latter artist attempts to give a tragic character and intensity to his figures, which we at once feel is not really to be found in English peasant life, unless in very exceptional cases. Miss Clara Montalba's "Santa Chiara" is a larger edition of the sketchy little work which is in the Society of Water Colours; there is remarkable luminosity of effect, but we cannot help feeling that it is an effect obtained without much trouble, a special manner of the artist of which she has the key, and which is very effective in itself, but is only a specimen of continual repetition of the same thing. In the entrance gallery is a large and effective painting by Mr. Hemy, "Saved," the word applying to the craft which have with difficulty got into harbour out of a gale; a large ship in the middle distance is towed in with every sign of having suffered severely, while in the foreground a small red-sailed fishing-schooner, which has carried away her foresail and gaff, plunges forward with a rush of her bows through the green water which is delightfully real; she has evidently had some difficulty in clearing the end of the pier which stretches out to leeward of her.

The Water-colour Gallery contains some things which are of interest from special qualities. Among these are Lady Anne Blunt's two Arabian desert sketches, especially the "Mecca Pilgrimage leaving Hail," where the look of intense heat and utter barrenness is remarkably given; the shadows of the caravan form dark purple patches on the burning sand. Miss Naftel's "Azaleas" and Mrs. Jopling's "Spring," the latter the head and bust of a girl clothed in furred tippet, with two immense metal clasps to it, are each excellent in their way. Mr. Doyle's "Battle of the Elves and Frogs" causes much interest and amusement, but one is tempted to ask if it is worth the labour and talent bestowed on it. Mr. J. M. Donne's "The Schlingelhorn" is a very spirited and powerful drawing in regard to the distance and the treatment of the confused mass of cloud and mountain rolled together. A drawing of "Horses on the Russian Steppes attacked by Wolves," by Mr. W. Prehn, should not be overlooked. Mr. Clifford, the painter *par excellence* of ladies' portraits in water-colour, sends two works in his best manner; the beauty of one of them (245) is no doubt due as much to the sitter as to the artist; it is, at any rate, a delightful object to look at. Lady Lindsay has several very pleasing flower-pieces.

The only work of importance in sculpture is Signor Fabi-Altini's "Galatea," a life-size marble figure, with very finely-modelled limbs and torso, and a head somewhat weak and sentimental. Among the smaller works in terra-cotta, Miss Pickering's life-size head of "Medea," in the west gallery, shows considerable power and expression, and it is interesting to see that this clever lady, first known as a painter, is taking up the sister art. Mr. Amendola's little portrait statuettes of Mrs. Tadema and Mrs. R. Lehmann are exceedingly clever; the latter recalls strongly, in its attitude and the way of holding the classic-looking fan, some of those little terra-cotta figures of Greek ladies from Tanagra, of which there are so many in the British Museum.

SOMETHING ABOUT PORTOBELLO.

PORTOBELLO is said to be the Brighton of Scotland. There is certainly some slender analogy, but only, we suspect, in the matter of its magnificent sea-beach, of which Prof. Huxley has spoken in terms of great admiration. We were only able to make a few hurried visits to it during a northward tour; but these, we suspect, will enable us to gratify the curiosity of such of our readers as may be anxious to know something of this celebrated Scotch watering-place, which, to our taste, exhibits a good deal of the character of the country to which it belongs.

In the first place, it was obviously never designed for a fashionable watering-place like Brighton, and for this reason, that it is chiefly made up of similar materials to a small manufacturing town in Lancashire, or, rather, let us say, in Staffordshire. The fashionable part of Portobello is the east end, where all the modern "villas" are built, and some of these are very good,—picturesque, as well as substantially built; while the west end consists of two or three exceedingly dingy and smoky bottle-works, brick-works, a tile-factory, and a paper-mill. It is now the seat also of one of the heaviest goods stations (not to speak of the passenger traffic) in the railway system of Scotland; and, on the whole, were it not for its magnificent beach and marine residences it might be regarded as a miniature specimen of a flourishing manufacturing town. Nevertheless, Portobello has its own attractions and natural beauties; and accordingly during the season, when the schools are up and the sun gets hot, it is perfectly inundated with fashionable people from Edinburgh and Glasgow, and other parts of Scotland. This condition of things our readers

understand; a few words, therefore, on the scientific features of the district will probably be of more use than a description of the watering-place.

Portobello took its origin about a century and a half ago from the whim or caprice of a sailor who had served under Admiral Vernon in the expedition to South America of 1739. He built in a solitary and sequestered spot, between the "Fishwives' Causeway" and the "Figgate Whins,"—a low red-tiled cottage, which humble cottage, standing at the south-west side of the High-street, was for long used as a tavern, and was an object of great curiosity. It was taken down with other buildings of a like character only a few years ago, to make way for the Town-hall. Of course, the name has no relation whatever to the character of the modern burgh. Portobello is not a port in any sense of the word; and if it were, it could hardly be made into a good port. Its beautiful beach, remarkably fine sands, and its facilities for sea-bathing, constitute its whole natural resources and attractions excepting one, and that is a valuable bed of boulder-clay.

It was this latter circumstance, of course, that led to the foundation or establishment of the brick-works, tile-works, bottle-works, and other industries, which still flourish, although in somewhat cramped and limited fashion at the west end of the burgh, and which, although unquestionably a source of wealth to the industrial classes of the community, are as certainly a most unmitigated nuisance to the rich and retired order of inhabitants. Yet it was these public works which gave rise to the original village, and subsequently co-operated in extending this village to its present respectable dimensions.

Portobello has thus a sort of hybrid character, from which it would be very difficult to divorce it, but which is every year getting more and more destructive to its reputation as a fashionable watering-place. At the same time, the resident proprietors seem to have accepted the conditions of their existence, and the residences towards the sea on the eastward side are springing up almost like mushrooms. There was a coal company launched in the neighbourhood not long ago (the Benhar Coal Company, Limited), which has since come to grief, we believe, which made it part, and it now appears the principal and the most profitable part, of its business to deal in land; and this, of course, led to a good deal of building speculation. But a great number of the villa residences and most expensively-built tenements are, as we observed, at this moment standing empty and tenantless, and this fact alone tells sadly against the building prosperity.

There are a few noteworthy buildings in the High-street, including several churches and one or two banks. There are two town-halls, one built by a limited company; but the Town Council, after a fifteen years' lease of it, built one of their own. The two buildings are not, however, altogether antagonistic, as the old council-chamber in the first is now converted into a lecture-room, and the old police-offices into various classes of houses and cellars, including, we believe, wine-cellars. Both belong to the same type of architecture, that mixture of old Flemish and French which is now designated "Scotch Baronial"; although, of course, the municipal buildings proper are the most important, and possess a more pretentious elevation and steeple. Both possess public clocks, which vary, as we observed, a good deal, in their registrations.

The churches are, for the most part, hardly worth noticing as mere buildings. The parish church of the district is at Duddingstone, a fine old relic of antiquity about two miles distant from the *quoad sacra* parish church in Melville-street, which is, therefore, the church of the burgh,—a building commodious enough, but of no architectural pretension. The Episcopal chapel is built in the taste of the very worst period of Scotch architecture, that is, in the old-fashioned square style, with an elliptical Corinthian portico, surmounted by a cupola. Indeed, the only artistic church we could see in Portobello was the New Free Church at Abercorn-place, which has a slender Early English spire, a high-pointed roof and gables, and some very good traceried windows. With regard to the water-supply and drainage, we may remark that the former seems liberal enough, being obtained from the Edinburgh system, but the latter is very defective. Not only does Portobello suffer from its own insufficient drainage, but it is also a victim to the outflow of the sewage of Edinburgh and the intermediate district. Part of this sewage is spread over the celebrated Craigentinny meadows which lie closely adjoining, and part of it is sent into the sea on the western boundary of Joppa. A discussion of this opens up, however, a very wide and important subject, of which our readers have heard something in the good old days of sanitary science and the reclamation of land, so we need not dwell on it. We will only devote a few concluding words to a consideration of the state of the promenade on the beach.

The promenade of Portobello, we may explain, is about a mile in length, and is for a great part of its length washed by the tidal waves of the Firth of Forth. In several parts it has been repeatedly washed away altogether, and we observe that a large portion of it towards the eastern extremity has now been reconstructed of concrete. Some of the best houses and most picturesque tenements are built here to the front. One very singular and grotesque building, called "The Tower," partially constructed of brick in the most curious and irregular manner, graces its approach at the western extremity; and in its centre stand the well-known salt-water baths for which Portobello has become famous. But its chief attraction is the pier,—a long jutting-out malleable iron structure founded on timber piles, which in the height of the season is the scene of gay and fashionable promenades, accompanied with military music. As the town cannot levy a tax for these expensive and luxurious features in their burgh, this promenade and pier are the property of joint-stock companies and resident proprietors, who have not yet, as we were informed, succeeded in rendering them remunerative, although they, of course, conduce to the general prosperity of the town.

It only remains to add that the municipal government and the police of Portobello are of a high order, very much superior, indeed, to those of some other watering-places we could mention.

PARTY-WALLS.

IT may be doubted whether, even among lawyers, the meaning of the common words "party-walls" is very clearly appreciated; certainly among householders and the general public these words are used with but a vague idea as to the strict legal meaning which must be attached to them. For, as a matter of fact, any wall which divides different properties is popularly spoken of as a party-wall. In London this somewhat loose meaning does not do any particular harm, and is distinctly encouraged by the phraseology of the Metropolitan Building Act, 1855, in the third section of which a party-wall is defined as "every wall used, or built in order to be used, as a separation of any building from any other building with a view to the same being occupied by different persons." Here the idea is certainly formulated that a party-wall means, in fact, a wall which divides one building from another without any kind of distinction in regard to the nature of the ownership exercised over such a wall. And there is nothing either in this definition or in that which follows of a "party-structure" to exclude a so-called party-wall from being the sole property of one of the adjoining owners. Hence the popular idea may, so far as London is concerned, be considered as not at variance with the legal meaning of the words as formulated in what forms the building code of the metropolis, the Act of 1855, which superseded the Act of 1844, and those which have from time to time amended or enlarged the later statute. But, after all, London is not England, and in order to understand what is, strictly speaking, a party-wall, we must look elsewhere than to the Metropolitan Building Acts. We propose to state shortly the general law in regard to this subject, especially since the case of Watson *v.* Gray (49 *Law Journal* Reports, Chancery Division, 243), tried in the spring of the present year, before Mr. Justice Fry, shows that there must be still not a little vagueness existing, even among lawyers, as to the meaning of the term party-wall. For we find that the chief part of the argument on behalf of the plaintiff is thus summarised in the report of that case:—"The expression 'party-wall' merely expressed the physical fact that the wall was a boundary between the two premises."

Is it possible, then, to arrive at a clear definition of a "party-wall"? The cases which are to be found scattered through various reports, and which are touched on in such works as Woolrych's "Law of Party-walls and Fences," and Hunt on "Boundaries," the former of which, though now some five-and-thirty years old, contains not a little useful information, seem to lead to some clear conclusions. And the recent judgment, too, of Mr. Justice Fry strikingly and succinctly takes the pith from the older cases in a convenient if possibly too wide a form. The primary element of a party-wall is that it should divide properties in the possession of different owners, and a necessary legal qualification is that each owner should possess some kind of property in the wall in question. The most common form of dominion in such a wall is that of the adjoining owners holding as tenants in common, that is to say, each of the adjoining owners possesses an undivided moiety of the whole. Therefore, party-walls which adjoining owners hold as tenants in common may be termed the first class of party-walls, and when there is any doubt as to the nature of the ownership of a dividing wall, the legal presumption is that it is a wall owned in common. This doctrine was established by two cases decided at the beginning of the present century, namely, Wiltshire *v.* Sidford, in 1827, and Cubitt *v.* Porter, in 1828 (8 Barnwell & Cresswell, 257). The judgment in the first of these decisions states this legal principle with no little conciseness, "Where the quantity of land which each party contributed was not known, the reasonable presumption from the common use of the wall was, *primâ facie*, that the wall and the land on which it was built were the undivided property of both." To establish such a fact as this, evidence very often of an elaborate kind may be necessary, or, on the other hand, it may be arrived at from the want of sufficiently strong proof of a distinct ownership of the two halves. In the recent case of Watson *v.* Gray, to which we have already alluded, the plaintiff and the defendant were the owners in fee respectively of two adjoining houses in Middlesbrough, and they had bought their houses from the same person. The difference between the two conveyances was that that of the plaintiff was the first in point of time, and the provision upon which the dispute turned ran thus:—"It is hereby agreed and declared by and between the said parties hereto, that the north and south gables of the walls of the said messuage and dwelling-house and hereditament hereby conveyed shall be and remain party-walls." The actual bone of contention was whether one end of the wall which separated the back yard of the two premises was the sole property of the plaintiff, or whether it was held by Mr. Watson and Mr. Grey as tenants in common. Here, then, we have a modern instance for the exposition of an old principle; for, as Mr. Justice Fry said, the prior conveyance of the plaintiff "would include the walls of his yard, if unqualified," and it is clear that if the popular acceptation of a party-wall, as we have seen it stated in the Metropolitan Building Act, were the only definition of a party-wall, it would have been quite possible for the wall in question to be the absolute property of the plaintiff. But Mr. Justice Fry, having regard to the cases which we have mentioned and the general character of the proviso, considered that by party-wall was to be understood a wall which the adjoining owners possessed in common. Therefore it may be fairly said that not only does this first class include the largest number of party-walls, but it is the kind which is most favoured by law, and it is also the kind which, in nine cases out of ten, when there is any dispute, will be held to be that which exists. Thus, in the case of Cubitt *v.* Porter, the presiding judge remarked that "where the builder of two houses grants off one, it is more reasonable to presume that he grants the whole wall in undivided moieties than that he should leave to either party the power of cutting the wall in half. If two persons built at the same time, the probability is that they would take a conveyance of an undivided moiety of the ground on which the wall was to be erected, in order that the property might afterwards be kept in the same state."

But having shown what is a party-wall, and what are party-walls of the first-class, it is necessary that another point should be borne in mind, which has been sometimes overlooked by surveyors and other professional persons. This is, that a wall may be a party-wall for a portion of its height, and not a party-wall for the remainder of its course. Here the somewhat

inaccurate ideas of the public may be very injurious, because it naturally might seem, if a wall from its base upwards, say for 6 ft., were a party-wall, that for the remainder of its height it would also be a wall of this nature. Fortunately, however, a recent case, Weston *v.* Arnold (8 Law Reports, Chancery Appeals, 1,085, 1873), has put this proposition beyond a doubt. "In this present case," says Lord Justice James, "there was part of a wall which divided the property of one person from the property of another. Apparently they were joint owners of that part or jointly entitled to it. It was therefore a party-wall in one sense, and was probably so in another. I do not know how that may be, but it only divided the two houses for a few feet in height, and above the few feet there was a wall which, beyond all question, was the separate and undisputed property of the plaintiff. It appears to me that a wall may be in part of its length a party-wall, and in part of its length an external wall, and there is no distinction between height and length. A wall may be a party-wall up to part of its height, and may be an external wall for the rest of its height." And the judge then goes on to give examples of how this might occur, especially in crowded cities.

Having thus pointed out of what this first principal class of party-walls consists, it will be well before passing on to the second division to notice the consequences which flow from the ownership in common of party-walls, in regard to the important practical point of the rights of the adjoining owners and their relative obligations. It may not, however, be out of place to point out here how superior the French law is in regard to this subject, for by Article 653 of the Code Civil, "every wall which serves as a boundary between buildings, even to its base, or between courts and gardens, is presumed party (*mitoyen*, *i.e.*, belonging to both properties) if there be no note or mark to the contrary." Here, therefore, we have laid down in a clear and definite form the character of dividing walls in a way which can be comprehended by any person who can read, whether he be a lawyer or not. Further on come the signs which show that a wall is not a party-wall, and the incidents which belong to walls of this character.

There are three things which may, as a rule, happen to a wall,—it may be raised, it may be pulled down, or things may be attached to it. The ordinary absolute owner of a wall may consult his own convenience in any one of these three events; if he desires to build a greenhouse against it and attach the timbers to the top of the wall he has no one but himself to think of in regard to it. It is an interesting question, therefore, to see what he may do if he is only a tenant in common of a party-wall. Again, if this same man owns a wall absolutely, and his neighbour pulls it down, or raises it, or puts articles into it without leave from the owner, it is obvious that the aggrieved party has a clear right of action, and may claim either for damages to recompense him for the injury he may have suffered, or an injunction to prevent the continuance of the subject-matter of his complaint. Therefore it is clear that the rights of the owner can scarcely be separated from the obligations under which his neighbour lies towards him. The result of the authorities may be thus briefly stated:—If the wall is raised by one tenant in common higher than it should be, the remedy is of a kind which seems somewhat antiquated, not to say rough and ready. The remedy is wholly in his own hands,—he must remove the bricks or materials which have been laid on to the wall. In law, no right of action for trespass, as it used to be called, exists by one tenant against another, except for what is technically known as "ouster." In such a case as we have put, and which actually occurred in Cubitt *v.* Porter, the proper course for the injured person, as we may call him, to pursue is to remove the materials which form the raised part of the wall.

But supposing that one tenant in common pulls the wall down, has he the right so to do, and consequently has his neighbour a good legal cause of action against him? And the answer to this depends upon another question, which is one of fact, and which must generally be answered by surveyors or architects, upon whom the responsibility for any litigation or for any improper submission by one party to the other must, as a rule, rest. Put shortly, the law stands thus:—If the removal of the wall is of a permanent character, there is a clear ouster, and a clear right of action existing in the aggrieved owner; if, on the other hand, the removal is of a temporary nature, then no right of action is raised. In an interesting and important case tried in 1878, before the Master of the Rolls,—The Standard Bank of British South America *v.* Stokes (9 Law Reports, Chancery Division, 68),— Sir George Jessel stated a portion of this proposition very clearly. "All three judges," he says, speaking of the decision in the old case of Cubitt *v.* Porter, "were agreed that you cannot have an action by one tenant in common against another tenant in common merely because he pulls down the wall which belongs to them as tenants in common, if it is a temporary thing, a temporary removal with a view to improve part of the property on one side at least, and perhaps on both"; and then, applying this principle to the case before him, this learned judge adds:—"What the defendant is doing, namely, the removing of the foundation of the old wall, be it for the purpose of putting in as good a foundation or a better one, it is not a destruction by a tenant in common." Therefore we have this important principle,—that for the merely temporary removal of part or of the whole of a party-wall no right of action exists, stated in the beginning of the century by three eminent judges, and recognised and approved of by perhaps the most capable judge of the present day. To give a right of action there must in fact be complete destruction, an intention to destroy, totally and for ever, and not merely an intention of a temporary destruction for the purposes of subsequent rebuilding. But if there is a partial injury to the wall, or if things are placed in or on the wall, as beams or broken glass, two remedies seem to exist: the first is to take the obnoxious] material away, as was suggested in the case of Stedman *v.* Smith (8 Ellis & Blackburn, 1857), and as actually occurred in Watson *v.* Gray, where the cause of the action was that the defendant had knocked off new brickwork and the roof of a shed which it had been placed to receive. Or again, there may be an action brought if consequential damage has been done. "If," says the author of "Woolrych on Party-walls," p. 110, "such intention] [of restoration] be absent, an action on the case in the nature of waste is the right remedy." The days of such subtle technicalities as actions of trespass and on the case are now gone by, but we cite this passage in order to show that in such a case as we are supposing of partial injury a right of action exists. The main and practical point, however, to keep in view is that if destruction takes place it is of the utmost importance to discover whether it is of a temporary or a permanent nature.

There is also another point of some practical importance which remains to be noticed in regard to this class of party-walls. Suppose a wall held by tenants in common, and it stands in need of repair, or the one tenant under such circumstances repairs it. In olden days there was a writ which could be obtained to make one tenant fulfil his duty to another, but this was abolished in the reign of William IV., in the year 1833; but, says Mr. Hunt, "tenancy in common does not imply any obligation on the part of one tenant towards his co-tenant to repair." But there is an old dictum of Coke that "If two tenants in common be of an house or mill and it fall into decay, and the one is willing to repair the same and the other is not, he that is willing shall have a writ *de reparatione faciendâ*." And cases exist in which the owners in common of houses who have not paid any part of the expenses of the repairs have been made to contribute by the Court of Chancery. Therefore there can be no doubt it may, we think, be said, without here entering into a lengthy legal disquisition, that a right to have a contribution for repairs exists at the present day. If one tenant will not give any sum towards the repair of a wall of which he is owner in common, and if the other owner expended money upon the repairs, the latter would be able to sue his neighbour for a proportionate share of the cost. We have now briefly shown the state of the law as to party-walls of the first and most numerous class. Those which remain, and which fall within more ordinary legal rules, must form the subject of another paper.

Yorkshire Fine Art and Industrial Institution.—It is stated that the Summer Exhibition of Paintings by Living Artists, to be held in connexion with the above institution, has been fixed for the 1st of July. It is to remain open for three months.

CHARTRES.

ALTHOUGH France is so near to us, it may be doubted whether there are more than a very few persons who have spent any of their leisure time in studying its people and its physical or architectural features with any thoroughness. That Paris is France is a very convenient saying, because when Paris has been several times visited, it is possible for a person to feel that he has studied and visited France in anything but a superficial manner. But what we should like to impress upon readers of the *Builder*, and especially those younger ones who have strength and also an inclination to spend some of their spare time in travelling, is this, that Paris is by no means France, and that if any one desires to understand and appreciate France, socially or architecturally, he must go to many places besides the capital. Among these places perhaps one of the most noticeable, and in one respect the most beautiful, is Chartres. Just under two hours by the fast trains from Paris, the chief town of the Department of Eure et Loire, it is accessible even to any one who will make a long day and return to Paris in the evening. With a history traced back to the Roman occupation of Gaul, when the city was called Antricum, it has been for ages the ecclesiastical capital of a large part of Western France, and still boasts itself the possessor of one of the most perfect cathedrals of Europe. It would be difficult to imagine a more striking site for a great ecclesiastical edifice. The cathedral stands on the summit of a hill which rises sharply from the banks of the Eure, whilst all around, for many miles, lies a vast and fertile plateau, not striking for any particular or individual landscape beauties, quite the reverse; but noticeable from the sea-like expanse of highly-cultivated land, in summer one waving mass of grain, for the tract of land called La Beauce is perhaps fitly termed the granary of France.

The town itself possesses no noticeable features: it is white and homely, and clusters round the cathedral in a contented and modest fashion. It is the great commercial rendezvous of that part of the country, and on a Saturday a characteristic scene awaits the visitor who strolls round the market, where scores of peasants are congregated behind their baskets selling the produce of the farms, and the poultry and rabbits which they have raised with true French carefulness.

But whilst it is almost wholly the cathedral which is the main attraction for the lover of art, yet it is an edifice which has been touched on so ably by various hands that the present writer does not think it necessary to give a description of it. Still, whilst we may leave our readers to refer for accounts of its magnificent rose-windows and the beauty of its spires to purely architectural works, it should not be forgotten, and it is well to remind every one of this fact, that, apart from all structural beauty or merits, the cathedral of Chartres gains immensely from the appropriateness of its situation. If the cathedral at Rouen be called to mind, and St. Ouen, even with the clear space around it, it becomes obvious what advantages Chartres possesses by its situation on the summit of a hill, of necessity towering on all sides far above any of the houses that stand around it. Therefore the ordinary architectural beauties are, so to say, magnified and increased, so that the edifice itself becomes more striking, and is on that account more worthy of being visited. And, again, the beauty of the glass, which is, perhaps, on the whole unequalled in France, will alone repay a pilgrimage; for it has two merits,—not alone is it unrivalled in beauty of colour, but the forms depicted are worthy of notice; the illustrations of sacred history, the representation of the various trade guilds, are all painted with rare simplicity and taste. In some of the colours the shades are almost unique; for example, the richness of the green is scarcely to be seen anywhere else. It is a green which is perfectly true to nature, which can be seen on the seaweeds on the shore and which modern artists fail to attain,—rich and soft, and blending wholly beautifully with the brighter but yet rich colours which form the rest of the windows. Of course, we do not mean that this green is more beautiful than the other hues, but it is a more uncommon colour.

To go to a different point, the sculptures in the porches should be studied even by those who do not interest themselves in architecture. Sculpture as an art can never be properly appreciated without its use in Gothic buildings is

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carefully thought of and its characteristics are examined. The sculptured figures outside the cathedral of Chartres are wonderfully simple in character and excellent in workmanship. There is, for example, a figure of a Knight Templar in chain armour, which is worked with beautiful minuteness, and the figure, in attitude and form, is most truthful and life-like. In fact, to go on with details, there is one arm off which the shirt of mail has fallen to leave the wrist free. Thus the workmanship, so careful and minute, of this single piece might well belong to a single work of art standing alone and by itself, and not to one which forms but an infinitesimal part of an immense structure. Such self-denying work it is wholly impossible to expect to see again, for its performance required a religious devotion added to great pride of workmanship, and yet a pride which was willing so far to become a sense of dignified contentment that the worker did not desire that his statue should take a more prominent place than that of his fellows, and thus each of those workmen whose names are now wholly forgotten taught at once a lesson of perfect artistic execution united to religious enthusiasm, and a merging of self in the pride of adding some little to a magnificent whole. Chartres Cathedral shows us all this with striking significance, because we find there admirable execution in the sculptured details added to great constructive skill and great general architectural beauty.

THE CITY OF LONDON SCHOOL, THAMES EMBANKMENT.

WE give this week illustrations of the new design for the City of London School, which was finally approved by the Court of Common Council on the 30th ult., and which is to be carried out forthwith.

Since the date of the competition the frontage and depth of the site have been entirely changed. This is mainly due to the fact that the Grocers' Company were very desirous to obtain from the Corporation a portion of the old gas-works site, having a frontage of not less than 140 ft. to the Embankment, for the purpose of erecting thereon their new hall; and this was only possible by reducing the frontage of the City of London new school building from 192 ft. (the frontage intended at the time of the competition) to 136 ft.

In order to enable the City Lands Committee of the Corporation to treat with the Grocers' Company, the architects, Messrs. Davis and Emanuel,—who, it will be remembered, obtained the first premium in the competition,—were instructed to prepare fresh plans, showing how the necessary accommodation could be obtained with a frontage of only 136 ft.; and although the negotiation between the Grocers' Company and the Corporation has, for the present, fallen through, the Common Council have definitely reduced to 136 ft. the site for the new school, but have given it, at the same time, increased depth. Working drawings for the new building have been prepared accordingly.

Those of our readers who remember the premiated design submitted in competition will see that the plans have been entirely recast; and the result we publish has been arrived at after very serious deliberation on the part of the School Committee and head master.

The Great Hall occupies the entire front of the first floor facing the river, with the main entrance beneath it in the centre, and the administration rooms on either side. The class-rooms occupy a compact block three floors high; the chemical school being on the second floor, and also the lecture-hall at its north-west corner.

Five staircases serve the several floors, viz., two of them from the second floor, two from the first floor, and one from the ground-floor; and the cross-lights from these staircases will aid in lighting the central corridor. Each class-room will have its separate hat and coat lobby entered from the class-room at either end, and enclosed by glazed screens from floor to ceiling, and ventilated on the corridor side, the class-room door being always under the master's eye. All the class-rooms are lighted on the left hand side of the pupils, and some of them are arranged to be thrown together by sliding partitions for use of larger classes.

It is intended to use a portion of the large hall floor for junior drawing-classes, the senior drawing-classes using the rooms beneath the back seats of the lecture-hall. Beneath the ground-floor of the greater part of the building there will be spacious covered playgrounds which may hereafter be fitted up as workshops for technical training. The gymnasium will form a detached building, and, with the five courts, will occupy a portion of the playground space.

The style of the building is Italian-Renaissance, and the front block will be entirely faced with stone.

In other points the features of the plan submitted in competition remain unaltered.

A preliminary contract will be entered into for the foundations, which will be commenced forthwith.

TOWER SCREEN, HOXNE CHURCH, SUFFOLK.

IN a field not far from the church at Hoxne tradition informs us that St. Edmund, king of East Anglia, was martyred by the Danes, on the 20th of November, 870, in the twenty-ninth year of his age, and the fifteenth of his reign. It is said that he was bound to a tree and beaten with short bats; then, to exercise their skill, he was shot at by the Danish archers till his body was completely covered with their arrows. Finally, his head was cut off, and thrown into the tangled bushes. When the Danish army had left the place, the king's friends went to seek for his body, which they found after a long search, but it was not till forty days after his death that (according to the old legend) they discovered his head, in the following strange manner:—Some of the searchers being separated from their companions in the thick wood, cried out, "Where are you?" when they heard a voice answering, "Here, here, here." On looking in that direction, they saw the head of the king between the jaws of a large grey wolf, which was apparently guarding it, but quietly gave it up to the astonished people.

A large oak tree used to be pointed out as the one to which St. Edmund was bound. This tree fell suddenly one still day in September, 1848. On cutting it up, an ancient arrow-head was found imbedded in the wood, about a man's height from the ground, and is now in the possession of Sir Edward Kerrison, bart., at Oakley Park. A stone cross has been erected on the spot where the tree stood to mark the site of the martyrdom.

Further to commemorate this remarkable event, which happened in the parish more than a thousand years ago, Sir Edward Kerrison has now erected in Hoxne Church, at his own expense, the beautiful carved oak screen, of which we give an engraving. It is placed in the arch separating the nave from the tower, which is a western one, and forms the principal entrance to the church. The screen was executed from the designs of Mr. James K. Colling, architect, of London, by Messrs. Cornish & Gaymer, of North Walsham, Norfolk, with the exception of the carved representation of the martyrdom, which is the work of Mr. James Forsyth, of Hampstead. The total cost of the screen was 160*l.*

The church has also been re-seated, with new pulpit, reading-desk, and lectern in carved oak, from the designs of Mr. Colling. The chancel has been restored and newly seated in carved oak by Mr. Ewan Christian, architect, for the Church Commissioners, the whole having been executed by Messrs. Cornish & Gaymer, with the exception of the seating of the north aisle, which was carried out by Mr. D. Day, builder, of Eye.

The following old tradition has been handed down in the parish of Hoxne till the present time:—When King Edmund fled to this place from Thetford, he concealed himself under the arch of a bridge over the stream, now called the Gold-brook, so named from the gold spurs which the king wore, and which proved the means of discovering his retreat. A newly-married couple returning home in the evening, and seeing by moonlight the reflection of the king's spurs in the water, betrayed him to the Danes. Indignant at their treachery, Edmund is said to have pronounced a curse upon every couple who should afterwards pass over this bridge on the day of their marriage, and until the last fifty years wedding parties carefully avoided the bridge and went round by another way.

Sir Edward Kerrison has now erected, from the designs by Mr. Colling, a new bridge on the spot, and a very convenient reading-room, which has been lately opened for the use of the village, close by. The principal gable of the reading-room is surmounted by a statue of King Edmund, and in a large circular bas-relief below is represented the above legend, with the marriage-party crossing the bridge, preceded by minstrels, and the king hiding below. These were executed by Mr. Harry Hems, of Exeter, from the designs of the architect.

There is an account of the life and martyrdom of St. Edmund, written in verse by Lydgate, a monk of Bury St. Edmund's, who was born in the year 1375, which is still preserved in the British Museum. The following verses are taken from it:—

"The cursed Danys of newe crueltie
This martyr took most gracious and benign
Of hasty rancour, bound him to a tre
As for ther mark to sheete[1] at and ther signe
And in this wise ageyn hym ther maligne
Made him with arwis[2] of ther malis most wikke
Resemble an yrchon[3] fulfilled wyth sprynge thykke."

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"Wyth wepyng terys[4] with nois most lamentable
So as they sought walkyng her and ther
Where artow[5] lord our kyng most agreable
Wher artow Edmund shew us heveniy ster[6]
The hed answerde thryes, her, her, her,
And never cesed of al that longe day
So for to crystel they found wher he lay."

[[1] Shoot. [2] Arrows. [3] Hedgehog. [4] Tears. [5] Art thou. [6] Star.]

In the church at Hoxne there is a very old carved bench-end (fifteenth century), representing the wolf with the king's head, which, no doubt, was placed there to commemorate the event. It also forms the crest of the arms of the town of Bury St. Edmund's. Both the crest and the arms of Bury (*azure*, three crowns with cross arrows, *or*) are introduced in the screen.

It is further related that upon finding the head of the king, it was placed with the body in a grave dug near the spot, over which was built a rough wooden chapel. Here the body lay for thirty-three years, and in the year 903 it was removed to Bedrichesworth (now called Bury St. Edmund's), where a large wooden church had been built for its reception. This became the foundation of that monastery, and the saint's body was guarded with great reverence by the monks. About the year 1010 the Danes again invaded England, and among other destructive works they burnt and plundered Bury St. Edmund's. The monks, being fearful that their charge should suffer insult or injury, removed the body of the saint, on the approach of the Danes, to a church in London (St. Edmund the King, Lombard-street), where it remained for three years. When peace reigned once more it was taken back to Bury St. Edmund's, resting on the way at the little wooden church at Greensted, in Essex.

In the time of William the Conqueror a beautiful church of hewn stone was built, to which, in 1095, the remains were removed, and there they rested, deposited in a splendid shrine, adorned with jewels and other costly ornaments, until the monastery was dissolved in 1539, in the reign of Henry VIII. The abbey church and the monastic buildings at Bury St. Edmund's are now a complete ruin, and there is not even a stone left to mark the spot where the shrine of St. Edmund stood.

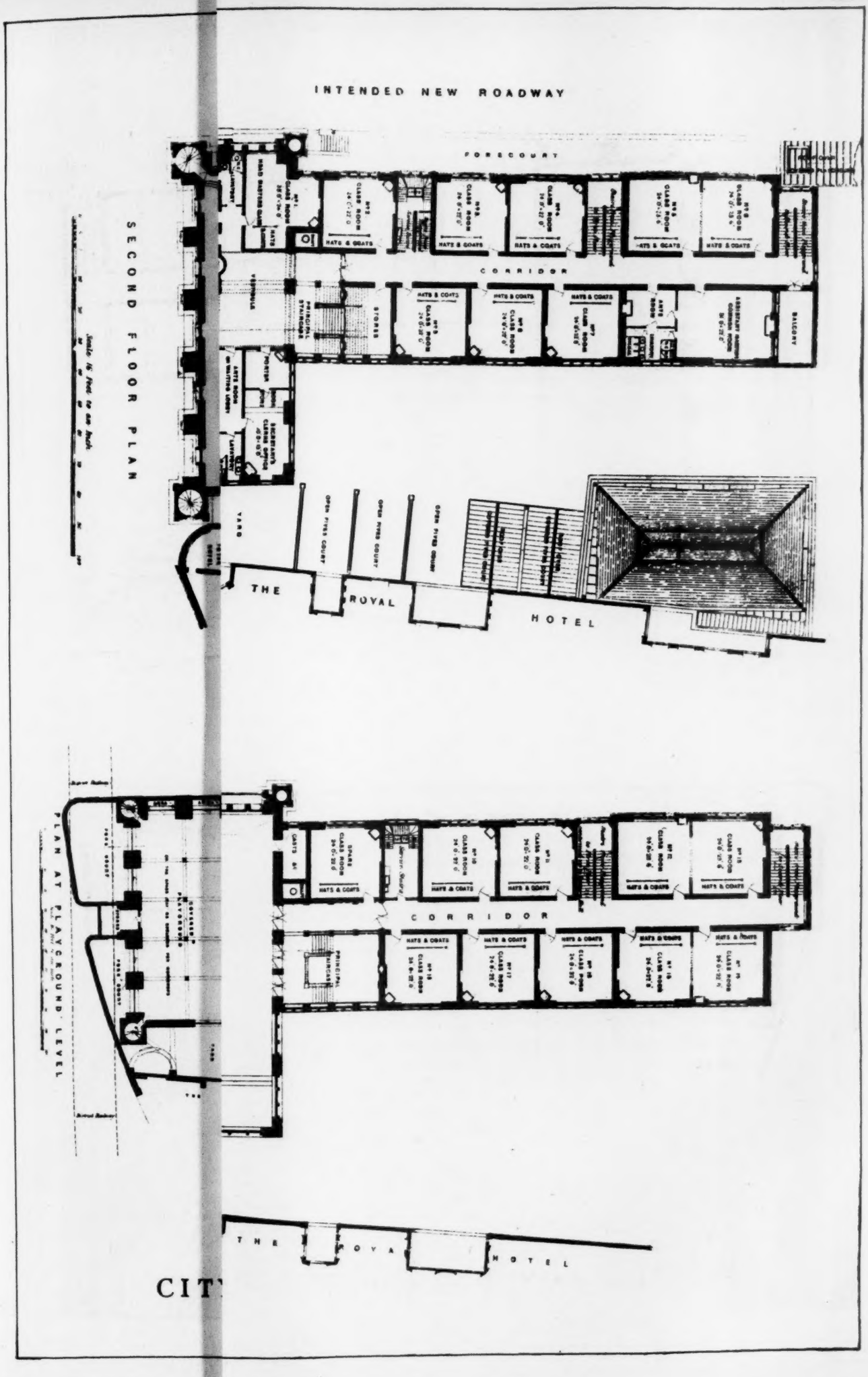
NEW BOYS' SCHOOL, ARUNDEL.

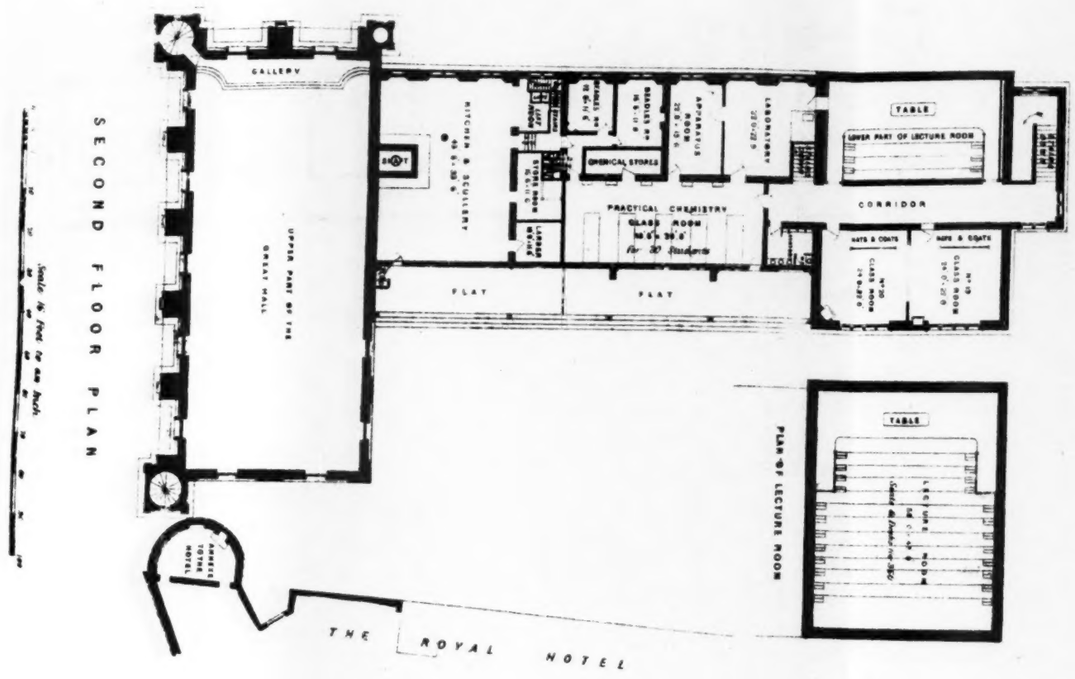
IN our issue of the 21st of February we published an account of the new boys' school, now nearly completed, at Arundel, for the Duke of Norfolk, E.M. We now give a view taken from the north-east corner in London-road. It is unfortunate that in a pen-and-ink sketch the colours should be entirely lost, for a feature in the building is the contrast of Ham Hill stone and dark Fareham bricks, the roof being covered with brindled Broseley tiles.

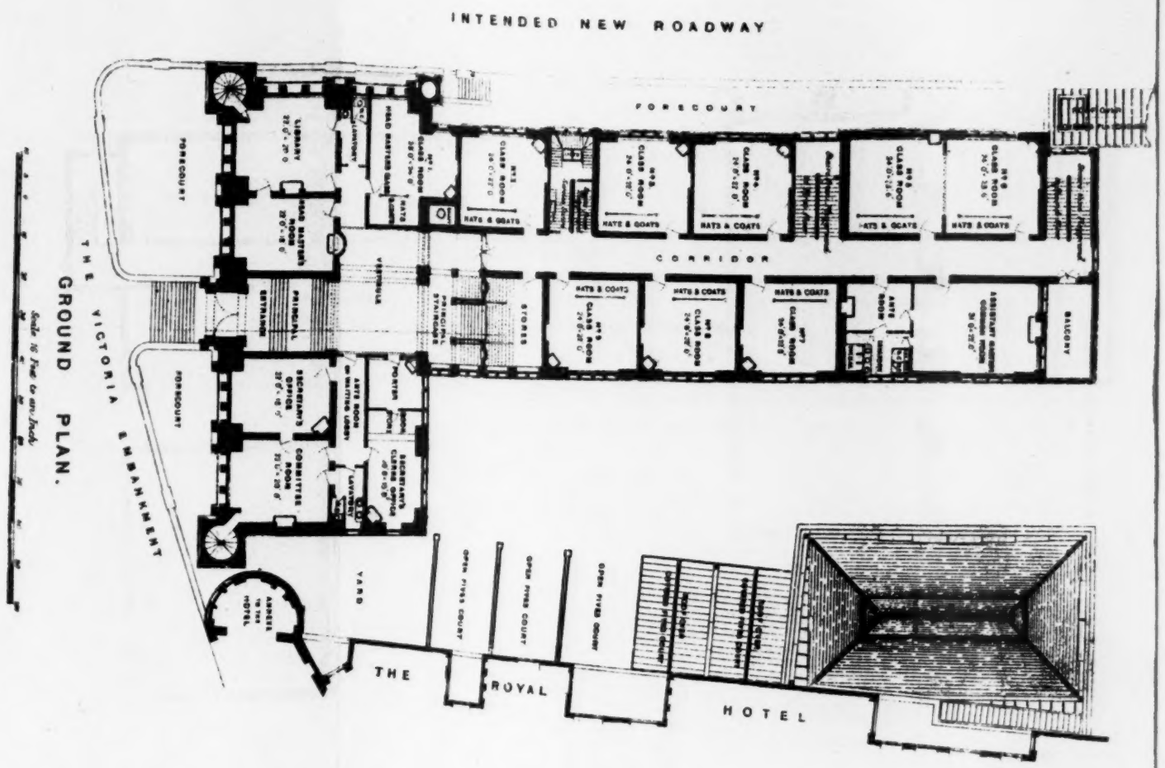
The accommodation being more than is likely to be required for some time, it was not deemed necessary to adhere to the common formal arrangement of seats. The height also is much greater than that called for by the Education Department, as advantage is taken of the design to throw the whole roof into the schools, giving an average height of about 22 ft. The outer walls are built hollow, the cavity being 2 in. between two 9-in. walls. A clock and bell are to be fixed in the turret by Messrs. Smith & Sons, of Clerkenwell. The contract was taken in open competition by Mr. Charles Claridge, of Banbury, at a cost of 3,550*l.*, exclusive of fencing, fittings, &c., from the designs of Messrs. Joseph A. Hansom & Son, of Westminster and South Kensington; Mr. Heveringham, the duke's clerk of works, superintending the construction. The building is nearly ready for occupation.

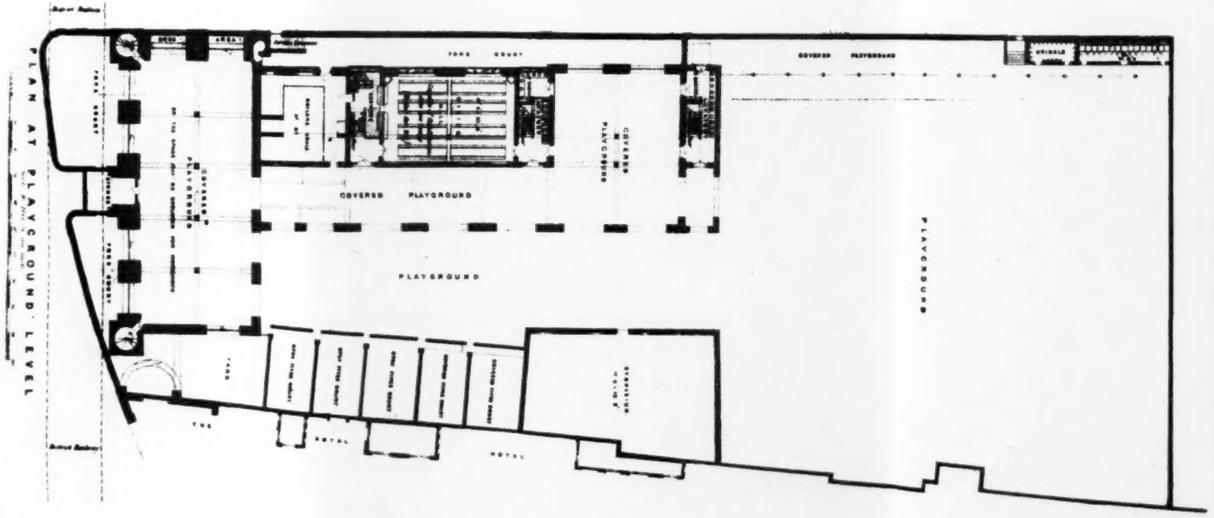
THE CITY OF LONDON SCHOOL, AS PROPOSED TO BE BUILT ON THE THAMES EMBANKMENT.——MESSRS. DAVIS & EMANUEL, ARCHITECTS.

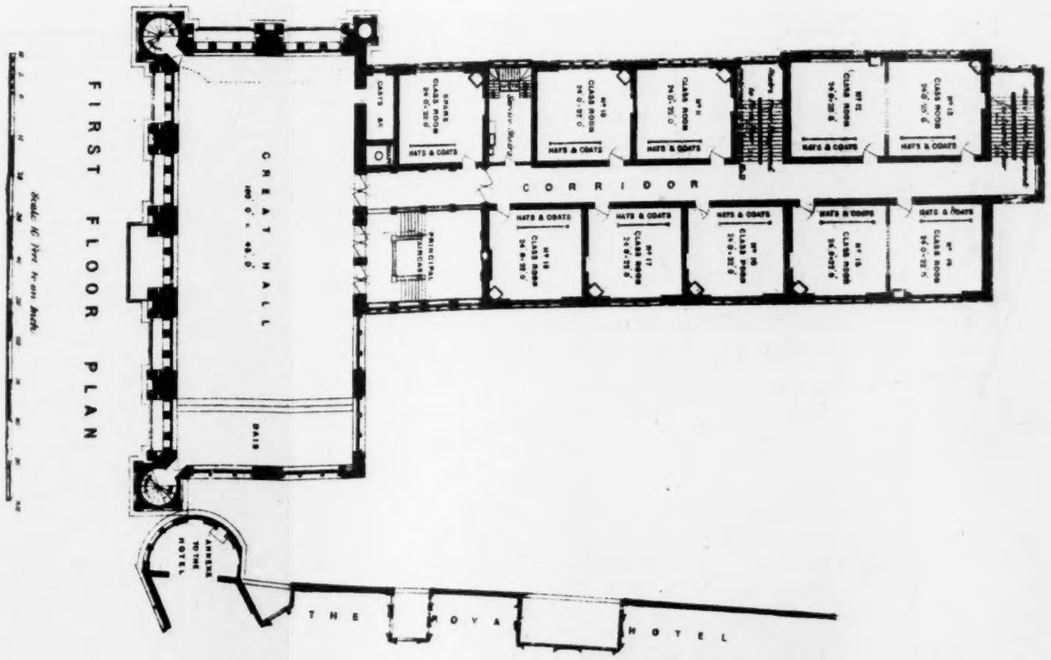
THE CITY OF LONDON SCHOOL, AS PROPOSED TO BE BUILT ON THE THAMES EMBANKMENT.—Messrs. Davis & Emanuel, Architects.







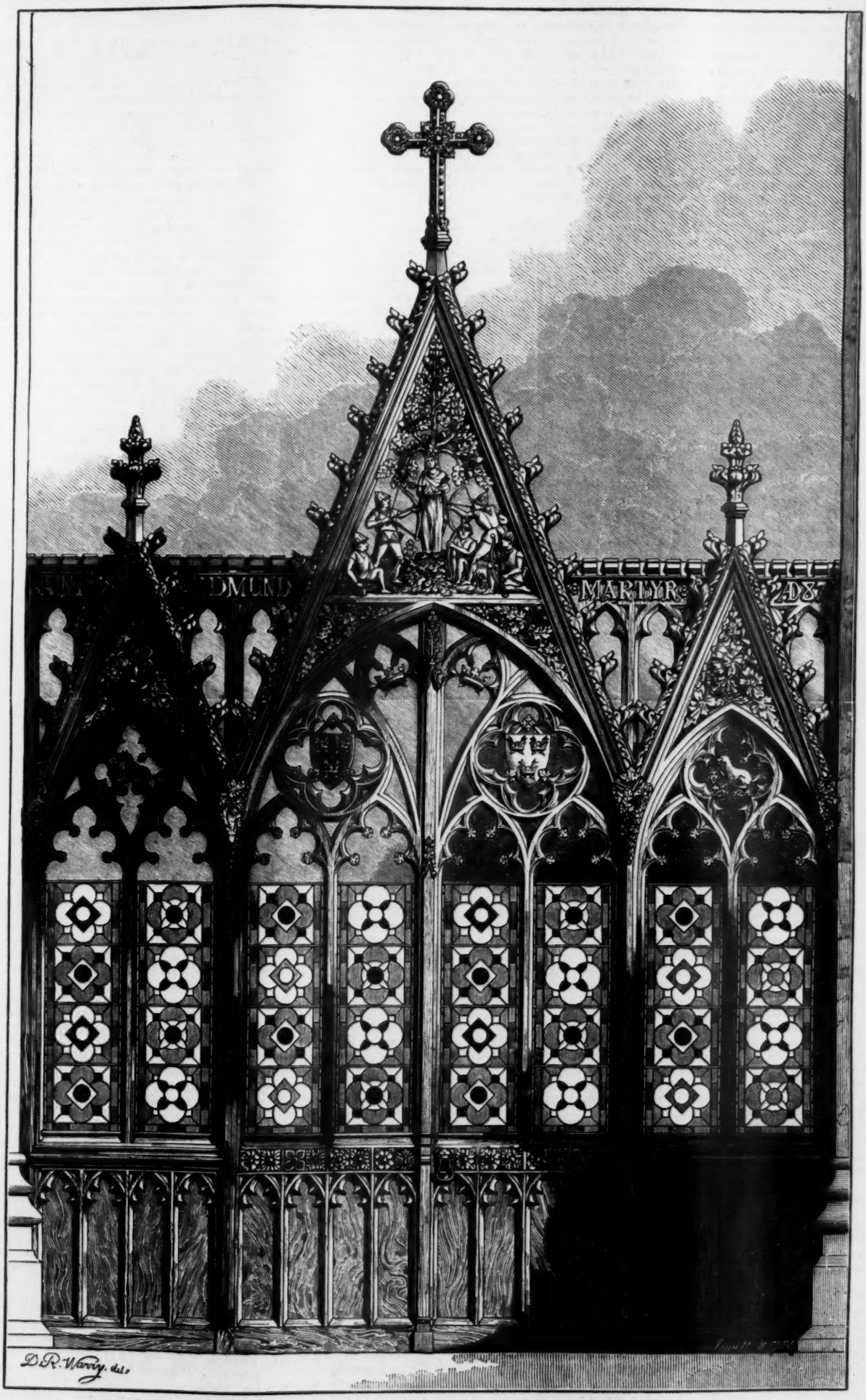




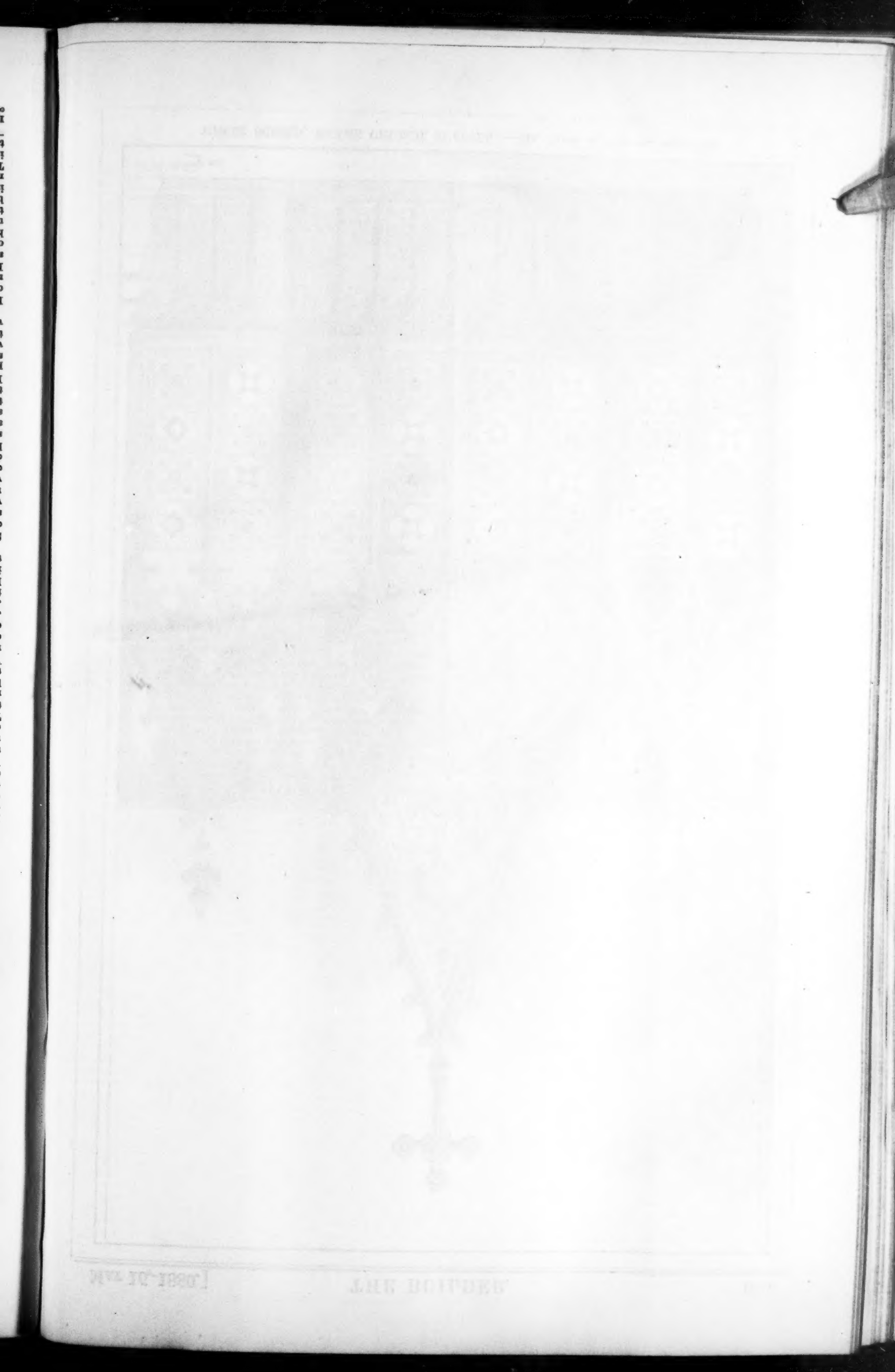
CITY OF LONDON SCHOOL. – *PLANS.*

THE CITY OF LONDON SCHOOL, AS PROPOSED TO BE BUILT ON THE THAMES EMBANKMENT.—MESSRS. DAVIS & EMANUEL, ARCHITECTS.

Boys' School, ARUNDEL, erected by His Grace The Duke of NORFOLK, K.G. — E. Hansom's Son, Architects.



TOWER SCREEN, HOXNE CHURCH, SUFFOLK.—MR. JAMES K. COLLING, ARCHITECT.



HADDON HALL.*

HADDON HALL is well enough known to the painter, the antiquary, the lover of the picturesque, and the ordinary tourist. It is, however, to be suspected that the value of this building to the student of architecture has not been quite as fully recognised as it might be, and it is mainly in order to point out to the members of this society, which to so large an extent consists of students, the quality and variety of its architectural features, that this paper was undertaken. At the same time, it seemed to afford a good opportunity for bringing under your notice the method of illustrating architecture which I believe I had the honour of being the first to introduce as an aid to a serious study of architecture, in lectures given to the students of the Royal School of Engineering at Chatham, —a method which has not yet been much employed, but which approaches more nearly to a visit to the building than any other. Before we separate, the magnified images of some photographic views of Haddon Hall will be thrown upon a screen by the aid of oxy-hydrogen light, and in those cases where it has been possible to find a photograph of the parts of most interest, you will be able to follow what is said much as though we were on the spot, an advantage not so fully afforded by diagrams or by any other method of illustrating architectural lectures or papers. I am, in addition, enabled to put some diagrams and lithographs before you.

It will hardly do to be quite silent as to the family history of Haddon, of which a full account is to be found in an excellent little monograph lately published by Mr. Jewitt. From this volume and other sources, we learn that at a very early period Haddon Hall was held by tenure of knight's service by William of Avenell. One of his daughters married Richard de Vernon, and with her Haddon Hall passed into the Vernon family, who remained owners for many generations. The name of Vernon is derived from their original home in Normandy. The châtellerie of Vernon, the castle, is mentioned in the Anglo-Norman chronicles, and the name is still preserved in a château lately rebuilt by a well-known member of the Association, who practised in France. Richard Vernon came over with the Conqueror, and was made Baron of Shipbroke, and from him was descended Richard Vernon, who married the daughter of William Avenell. Previously to 1199, John, Earl of Monteigne, afterwards King John, granted a licence to Richard Vernon to fortify his house at Haddon with a wall 12 ft. high, without crenelle, i.e., crenellations. This interesting licence is now in the possession of the Duke of Rutland.

Passing over several generations, we come to Sir George Vernon, who in 1515, on the death of his father, succeeded to the estates. He was surnamed the "King of the Peak." This title was given him on account of the princely magnificence and hospitality in which he lived. He was twice married, first to Margaret, daughter of Sir Gilbert Taylebois, by whom he had two daughters, Margaret and Dorothy, who were his heiresses. He had the character of a just and strict, as well as generous and hospitable, man, although given perhaps to an undue severity, and to an indulgence in "lynch-law." To his time some of the reconstruction and much of the finishing of the building must be referred. He died in 1567. At the time of his death he possessed no fewer than thirty manors in Derbyshire alone. He was buried in Bakewell Church, where there is a very fine and well-preserved tomb, bearing the effigies of himself and his two wives.

His daughter Margaret married the son of the Earl of Derby, but his youngest daughter, the celebrated Dorothy Vernon, formed an attachment to John Manners, son of the Earl of Rutland, which was opposed by all her relations, and she was closely watched. One night, on the occasion of a ball, which tradition says was in honour of her sister's wedding, she stole away unobserved from the ante-room on to the terrace, and thence across the lawn to the footbridge, where she met her lover. Horses were in waiting, and they rode all night, and were married in Leicestershire the next morning. The door through which it is said she escaped is always shown as Dorothy Vernon's door, and the steps down which she is said to have fled form one of the most favourite subjects about the building for artists. Dorothy is said to have been a most beautiful woman, and to have possessed so sweet a temper that she was idolised by all who knew her. She received the Haddon estates, which so entered the Rutland family. Shortly after their marriage, her husband was knighted. He obtained possession of Haddon in 1567. They were both buried at Bakewell Church, where their monument still exists. They were succeeded by their eldest son, Sir George Manners, and this branch of the family, which in 1641 inherited the Rutland peerage, continued to live here till about 1699, when they left for Belvoir Castle.

The best old published plans of Haddon Hall are in Lysons's "Britannia." A glance at one enlarged from them will show that the general plan of the hall is an oblong building, nearly, but not quite, as long from east to west as it is from north to south. There are two towers, one at the north-east angle and one at the north-west angle. For the most part the buildings are two stories high; they are battlemented throughout. They are built round two irregular quadrangles, and occupy a rocky site, part of which slopes rapidly from east to west, a circumstance that adds not a little to the picturesque charm of the western quadrangle.

The general disposition of Haddon Hall is as follows:—The heart of the mansion, that in fact which contains the apartments distinctive of an English baronial house, lies in the block which divides the two internal courts. In this building we find a close conformity to the ground-plan of other Mediæval English houses, such, for example, as the residential part of Warwick Castle, a plan of which I have enlarged from Parker's "Domestic Architecture." Here we find the ancient hall, a passage being screened off at its lower or northern end, from which the kitchens, larders, buttery, cellars, &c., open. The hall has no bay window, but it still possesses the great open fire-place, and at the end furthest from the entrance, properly termed the upper end, the dâis, a slightly-raised platform up one shallow step, on which still stands a mighty table of venerable age. Immediately beyond this comes the old private dining-room, and the usual door of access to it existed, though it is now built up. The north side of both quadrangles, as well as the western end of the building, is occupied by the more domestic rooms. Much of the east end, and the whole of the south side, is occupied by the state rooms, including a drawing-room, a grand ball-room, and several bed-rooms; while last, but not least, at the south-west corner stands the chapel.

The domestic buildings, as well as the chapel, are stated by local antiquaries to include remains of Norman work, but there are no traces of a keep or any like one, and no masonry has met my eye which recalls exactly the peculiarities of Norman work. There are, however, some features in the chapel which have a very Norman appearance, and certain it is that the oldest parts, as we now see them, must date at least from the thirteenth century. Curiously enough these earliest portions lie at opposite corners of the block, for they occur in the chapel and the Eagle Tower.

The central block of buildings already referred to is apparently of late fourteenth-century architecture. In the fifteenth century the outer ranges of buildings were in many parts built or rebuilt. The sixteenth century saw further additions and many alterations. The great ball-room and state rooms forming the south range are of this period. Lastly, many of the internal fittings are of the seventeenth century, especially in the domestic range on the north front. The chapel shows work of every one of the centuries named, nor is this a singular occurrence, for throughout the building small alterations and improvements seem constantly to have been made, and as in many cases the old stones were re-used in the newer work, the building offers not a few curious and perplexing little problems for the archæologist.

My own theory is that the original twelfth-century domestic buildings of Richard Vernon must have occupied the site of the existing hall and kitchen. Mr. Jewitt, as you will recollect, has pointed out that before the year 1199, Richard de Vernon obtained a licence to fortify his house of Haddon. This shows that at that time an unfortified dwelling-house was standing, and it is most natural to suppose that it stood where the present hall stands. The line of the wall, built in pursuance of the licence, would probably be the same as that of the outer wall of the buildings which enclose the east court, and the Eagle Tower, which I have referred to as showing marks of thirteenth-century work, was probably the gate-house. It appears likely that the western enclosure may have been of a later date entirely, and that the chapel, which is larger than that of a private house usually is, may have at first stood quite detached. The rather awkward way in which it joins the other buildings, so that it lies, much of it, outside the outer line of wall, at least on the south side, rather seems to support this idea. Possibly a careful examination and comparison of the masonry of the outer walls of the western half of the building might reveal, or has revealed, some mark of date, showing that the inclosing-wall of the end of the twelfth century took in the western court as well as the eastern. I cannot, it is true, report having personally found anything in this wall in which I recognise marks of great antiquity. If, however, it can be established that the chapel has always been included within the wall, then the space enclosed by Richard de Vernon must have been pretty nearly as much as that now occupied by all the buildings.

The situation of Haddon Hall is at once picturesque and commanding, though also sheltered. It occupies the front of a kind of projecting spur of rock pushed forward from the north-eastern side of the valley of the Derbyshire Wye. The position, even before the introduction of gunpowder, was not a very strong one. Still there was some amount of natural defence, and the ramparts commanded a complete view of the plain below. The building is not a large one or lofty, yet, from the perfect way in which it retains the aspect of a mansion of the Middle Ages, it is one of exceptional interest.

I propose now to invite you to examine with me the different portions of the structure; and first, if you please, we will (as one always should do in visiting an ancient building), walk round the exterior. The present approach to the building is at the north-west corner. Here we find a tower which we will call the entrance tower. This is of late fifteenth-century design, and is a very familiar object in views of the place. It is, no doubt, venerable and picturesque; but were it the work of an architect of the present day, we should call the management of the windows very clumsy. There is, however, some exquisite Tudor detail about a partly-ruined doorway at the east angle. The west return wall is lofty, pierced but by few openings, and rises above a kind of crag. It terminates in the west end of the church, and, like all the external walls, is battlemented. The north wall is far more interesting. It is pierced by many windows. Its continuity is broken by the projection of the fine old fourteenth-century kitchen, with a wonderfully-complicated series of weatherings, buttresses, little lights, and irregularities. Work of several periods can be traced in it here and there, the changes being often abrupt. As the buildings extend eastward they have to climb rising ground, and the outline accordingly shows two breaks in height. At the north-east angle of the buildings the perspective is closed by the outline of the Eagle Tower. The domestic character of the work is shown not only by the many mullioned windows, but by the occurrence of a series of chimney-stacks, the caps of which have, I think, suffered from a bad restoration, but which otherwise are not modernised.

We will now, if you please, walk round to the east side of the building, and I cannot avoid saying that, though this is perfectly accessible, and though in fine weather scores, if not hundreds, of visitors visit the place daily, including, of course, many cultivated and artistic persons, I seldom recollect to have seen, during a pretty long experience of the place, a visitor take the trouble to make his way hither. Of course, the east side must be occasionally visited by antiquaries and students of architecture, but the general public seem to think that there can be nothing there to look at.

Here we find a piece of ancient work. The entrance tower, otherwise Eagle or Peverel Tower, was extremely plain, but its battlements and parapets have apparently been recast late in the thirteenth or in the fourteenth century; and at the same time a very picturesque parapet, with stepped battlements, was added to the old east wall. Part of this has fallen, leaving the narrow *chemin de ronde*, which it screened, and part is overgrown with ivy. Enough remains visible to show that this was an excellently de-

* Paper by Mr. T. Roger Smith, F.R.I.B.A., and Mr. R. E. Smith, read before the Architectural Association, on the 7th inst., as elsewhere mentioned.

signed addition to the earlier and plainer work. But few windows pierce the walls, and what occur are mostly small and mullioned, but not large enough to require transoms. The old archway, which appears to be a fifteenth-century insertion taking the place of an earlier arch, is still occupied by a pair of ancient-framed gates. In order to complete the view of the east end, and to see the south side, it is necessary to pass into the old gardens, and we find ourselves here face to face with buildings of Elizabethan character. These probably, in part, occupy older foundations, but they are themselves new buildings of the sixteenth century.

Dorothy Vernon's doorway, plain enough in itself, but made graceful by the pretty Elizabethan balustrade, which, however, was most likely built after the elopement which took place in the middle of the sixteenth century, and the end window of the great gallery or ball-room, are the features that complete the east elevation. The whole south front presents a most telling series of bay and oriel windows. Those of the ball-room have mullions and two transoms. Some of those further on are smaller, and have no transoms. At the end of this line of buildings we see the Late Perpendicular east window of the chapel looking at us. It occupies a gable of very flat pitch. The side-wall of the chapel completes our south wall; and the east wall, already referred to, brings us back to the point from which we started.

In this perambulation we shall have noticed that, in the main, Haddon Hall was a building of two stories only, though here and there there are three floors on the north front; that it is entirely built of stone; and that several qualities of stone and kinds of masonry are to be detected.

We will suppose that we enter by the older, and at present little-used, entrance under the Eagle Tower. There are no signs of a moat and drawbridge, and the general configuration of the ground makes it unlikely that such a defence ever existed. There is, however, in the gateway a groove for a portcullis. The east quadrangle, in which we now find ourselves, is higher in level, less broken up by picturesque features, and more primitive as well as more simple in appearance than the western one. The east side of it, however, is extremely interesting, and presents, concentrated into one spot, a kind of epitome of all the changes which the hall has undergone, so that an examination of it somewhat in detail may serve our purpose.

The old tower, which forms the main feature here, is built of rather rough limestone rubble, with quoins, parapets, &c., in coarse sandstone. It is oblong on plan, having an entrance archway passing quite through it; a staircase turret square on plan, and built straight without sets-off, is joined on to it. Two lower blocks of building, north and south of it, which I will call its wings, are of the same masonry and same age; and it seems to me that this when erected was a complete structure, built to stand alone. The walls of the wings have a slight batter, and where the buildings of later date are joined to them, as they now are, there is a straight joint, and the quoin of the oldest part is complete down to the ground. The jambs of the lights have but a single splay, while almost all the other windows of the building have a double one. The moulding in the jamb of the doorways is one hollowed splay. The heads, which are curious, are each one lintel cut to a slightly ogee shape. This may be the original square head altered at a later date. The battlements of this part are all cut square at the embrasures, and this mark of simplicity distinguishes them from those in use elsewhere, which have the mouldings of the lower part of the cap carried round the embrasure. The parapets are carried on very rude corbels; but on measuring these battlements, which are roughly executed in very coarse stone, an unexpected refinement was to be detected, the higher battlement being slightly steeper than the lower one.

The remaining portion of this wall is of later date than the tower, and bears marks of one, or perhaps two, alterations. The masonry is not unlike that of the tower, but includes some sandstone, and the straight joint between it and the tower has already been alluded to. It is therefore pretty certain to be subsequent in date to the tower, but not long subsequent, for it contains one window and another window-head, having the single splay outside already alluded to. Almost everywhere else there is a double splay. Into this wall a window or two were inserted, apparently in the fourteenth century, but without in one case taking away the head of an older and larger window already existing, and this accordingly remains in its old position.

In the fifteenth century a Tudor door-head was inserted to one doorway, and a parapet and battlements were built to replace whatever finish this wall had previously possessed. This parapet does not overhang, and a moulding runs round the embrasures. Later still the fine bay window which, on its upper story, lights one of the state bedrooms, was added. This probably was late in the sixteenth century. Its mullions and jambs are round-sided, and it has double transoms. It must have been built either at or shortly before the same time when a fine lead rain-water head and down pipe, still in use, was fixed within a few yards, bearing the date 1602. I have lingered over this little fragment of the building because it contains work of nearly every period represented in Haddon Hall, and illustrates thoroughly the kind of alterations that have gone on.

The north side of this quadrangle is of later date than almost any other part of the building. The masonry is of finely-tooled squared limestone rubble, and the design of the elevation regular and rather formal. The parapet and battlements seem to be fifteenth-century ones, if not even earlier ones, reset. The feature of the west side of this court is the old external wall of the great hall, with its pointed doorway, and one of its large and rather clumsy tracery windows and some ancient gargoyles. The mullions here come to the face of the wall.

The western quadrangle, the one which is most irregular, but yet has most pretence to architectural dignity, is usually entered by the north-western tower. The archway is segmental, not four-centred, and the entrance being very oblique, a most eccentric series of arched corbels have been employed to carry the upper part of the walls of the quadrangle.

The ground rises steeply and irregularly from the quadrangle, and the most picturesque irregularity is the result. The higher or eastern side is mainly occupied by the hall, with its mullioned and transomed windows, with simple and coarse fourteenth-century tracery in the heads (rebated, by the bye, inside for shutters, and still retaining one hook and one ring), and its vast fire-place and its fourteenth-century porch, to which, in the fifteenth century, a very pretty upper story, with a battlemented parapet, was added. The opposite side of this court is of tolerably uniform Tudor character, but with here and there a trace of earlier work.

In the corner of this quadrangle is the entrance to the chapel,—a building making some little approach to the dignity of a church. It consists of a nave and chancel, with no break or division of any sort between the two save a screen of woodwork of very late date. The axis of the church is due east and west, consequently it is oblique with all the other lines of the building, which are not equally true to the cardinal points. There are two transepts, the north one extremely shallow, the south somewhat deeper, but each divided from the nave by two pointed arches springing from a small shaft. The north transept is filled up by light screen-work. The south aisle has four single lancet windows, and the shaft from which its arcade springs clearly was standing in the Norman church, for the pointed arches, probably thinner than the original Norman arch, spring from it, and the capital has been cut down to receive them in the most clumsy manner. Traces enough remain, however, to show that in its original state it was a basket capital with channelled sides much like the capitals of St. Bartholomew's, Smithfield. This very curious and unusual bit of alteration can be clearly seen in the photograph exhibited. This shaft stands on a very flat, spreading, moulded base. The north shaft is octagon, and has a moulded cap of Decorated character. The arches are equilateral, and of two plain splays. They appear to be fourteenth-century work. Curiously enough there are two west windows, the lower one a very plain three-light window with lancet-headed lights, the upper one Perpendicular. The mullions of the lower window are splayed outside only, and there are marks indicating that the window could be closed inside by a shutter. The church formerly possessed a rood-screen, and the staircase for approach and door for access still exist. A squint exists, having been re-opened in modern times, which enabled any person standing on the rood-loft to see the priest in the altar at the east side of the chapel; for an altar stood there as well as in the chancel, and both altar-stones and piscinas remain.

The chancel is Perpendicular, so is a very pretty staircase and belfry-turret appended to the church, standing north of the transept. Some fragments of good stained glass, mostly of sixteenth-century character, and some remnants of mural decoration, exist. There is a Norman font, perfectly plain, and a cope-chest, and there are against the east wall of the transept marks of something having stood upon a single shaft, placed north of the altar, at a height of 5 ft. 4 in. from the floor, which I confess myself quite unable to decipher.* The base of the shaft is *in situ*. The fittings of the church are chiefly high pews, and a high rail panelled below at the chancel step, all of seventeenth-century character, painted white, and with marks of gilding.

In the north transept stands a fifteenth century holy-water stoup much worn. The masonry of the exterior shows that when the upper west window of the nave was added the west end was rebuilt, and probably heightened. Parapets were added at this time, and the chancel must have been brought to its present state at the same time. There are some traces of what looks like a west doorway in the south aisle. If so, this would be the door which was made use of by the villagers who came here to mass.

Leaving the chapel, and recrossing the quadrangle to enter the main porch, we find ourselves in the entrance to the hall. The hall may be about 45 ft. by 30 ft. It has, and probably always had, a screen of oak across its north end. Originally, it had on the south side the entrance-door, two windows, and a vast fire-place, and on the north side an exit-door and two windows. One of the latter is now turned into the approach to the ball-room. At the north or lower end of the hall are four doorways, with segment-heads opening out of the passage behind the screen. At the south or upper end of the hall occur the low step or dais and two doorways—one now closed. A ponderous oak table, with good moulded legs of apparently sixteenth-century character, occupies the dais. As has been already pointed out, there is no bay. The screen already alluded to is of oak, with two wide openings in it, not rebated; so that curtains were employed if these openings were ever closed. On this screen rests the front of the minstrels' gallery, which was over the passage. The front is of very good Perpendicular character, and apparently quite untouched. At a later period a side gallery, which very much spoils the effect of the hall, has been thrown along the east side to form a communication between the north and south sides of the house.

The old roof and the louvre (if one existed) are gone and replaced by a common queen-post. The original fireplace has been replaced by a jamb and head of sixteenth-century work, but still there is so much of old character about this hall, and the lapse of time has imparted such magnificent colouring to it, when seen under bright sunshine, that its interest and beauty are of a very high order.

The kitchens, butteries, larders, and cellars, which open out of the passage northward, are not a little curious. They are extensive and very little altered, but their interest is antiquarian more than architectural, except, indeed, that the great kitchen fireplace and chimney, the wonderful series of weatherings and little windows that belong to it, are almost, if not quite, the most picturesque and clever bit of architecture in the exterior of the whole place.

Immediately behind the hall is the panelled dining-room, with a fine oriel and some excellent wood-carving. Above this room is the drawing-room, of the same size, richly decorated, and possessing some fine tapestry. Two or three rooms open out of this westward, chiefly interesting for their tapestry; and opposite the door of it is the entrance to the ball-room, or long gallery, the finest room in the house. The gallery is 109 ft. long, and 18 ft. wide, exclusive of the bays. It has three fine bays, one square on plan, and two flat octagons, and nearly the whole east end is occupied by a large window. All these are mullioned and double transomed.

The walls are lined entirely with oak, elaborately carved, and possibly, from its inferior taste and late character, rather more recent than

* Since this paper was read Mr. Oliver has pointed out that in All Saints' Church, Northampton, a similar feature exists and is in use as a piscina. But at Haddon there exists a piscina in addition.

the hall itself, the building being apparently late sixteenth or very early seventeenth century work, and the panelling looking like late seventeenth century. The great bay, the finest portion of the whole, is very effective and telling, and its vigorous proportions render it a very important feature. The ceiling of the gallery is richly ornamented with moulded ribs of light section, slightly coved, but with no moulding to mark the top of the cove; it is very successful.

The general effect of this room is massive, thanks to the long stretches of unpierced wall, and nothing can be better than the splendid contrasts of light and shade produced by the floods of light brought in through the great bays, with the comparative gloom between them. The end of this gallery is something like a fourth bay, with its vast end light and two spacious side windows, the cills being breast high. The effect of this end can hardly be surpassed as a piece of good Domestic architecture. We shall presently see that the external effect of these windows is as good as the internal.

We pass from this ball-room, through an ante-room, into the state bed-room, remarkable chiefly for its elaborate plaster chimney-piece, representing Orpheus and the Beasts, and for its fine tapestry and splendid state bed.

This may be a convenient opportunity for referring to the furniture and the tapestry. Though the general effect of the building is unfurnished and bare, yet there is a little fine old furniture of the seventeenth and eighteenth centuries scattered about. I have already named the state bed and the cope-chest. There are some old presses and tables of good character in the hall, the ball-room, and one or two other rooms, and in the house adjoining the present stable, formerly one of the dependencies of the castle, now occupied by Mrs. Bath, some excellent carved oak furniture is preserved. The tapestry, however, has a much stronger claim on the attention of the antiquary and the artist. A very considerable number of rooms are hung with it. Some is much more valuable than the rest, but there is very little which is not good, while in the great state bed-room and in one of the rooms of the north suite there are hangings, one of arabesque, which I think is Gobelins work, and the other occupied by sportive groups of amoretti, apparently Italian, that are hardly to be equalled. In the hangings of one of the rooms opening out of the drawing-room, there occurs a representation, said to be unique, of hounds chasing a wild boar, and protected in a kind of scale armour.

Passing from the state bed-room through doors which are not ordinarily open to visitors, we may wander through the upper range of rooms which form the north front, and may enter those forming the north-western tower. These rooms are interesting mainly on account of the good panelling (of somewhat late character, it is true) which some of them retain, the tapestry, and here and there the furniture.

We will now suppose that we leave the interior, and, passing into the grounds, examine the house and terrace together. Here we find a very successful use of varied levels to lie at the root of a great deal of the charm which hangs about the building, and especially about this most picturesque and best-known portion. Perhaps there is no lesson more instructive to us in the whole of the surroundings than the one conveyed by these terraces and arcaded steps, and the successful effects produced with simple means by this aid. The garden, fortunately, remains unaltered, as an example on a small scale of the charming formal gardens which have been destroyed by the score by ignorant landscape-gardeners. A few hundred yards east of the Hall on the rising ground, the enclosing walls and entrance of an old fruit orchard and garden still remain, but the garden which they surround has almost lost its charms. Not so, however, the terraced garden, and especially the famous flight of stone steps, with its arcaded balustrade, and the old yew-tree as a background. Few scenes in England have been more often sketched and painted than this, but the old staircase has not yet become so familiar as to lose its character.

Here, perhaps, it may be convenient to linger for a moment before we part, and in a few words to point out what there is to be studied at Haddon. Before doing so it is only fair, in acknowledging the great courtesy which I received from Mr. Nesfield, the Duke of Rutland's agent, to say that there is no place in England where an architect or artist, going with proper credentials, is made so free to draw or paint as at Haddon Hall, and treated with such courteous confidence. This great privilege is one which I hope, will never be abused. I trust every architect and every painter will consider himself for the time being one of the guardians of the monument, bound to shield it from harm.

But for this liberal kindness on the part of the Duke of Rutland and those who represent him, and the courtesy, not only of Mr. Nesfield, but of Mr. Jewitt, the well-known antiquary, who resides in the neighbourhood, I should, I need hardly say, have been quite unable to get together the materials for this evening's paper.

What can be here studied, in addition, of course, to the general disposition of the building, and the windows, doors, doorways, masonry, and other features which are too obvious to need enumeration, consists, first, of old joiners' work. There is no linen-fold panelling, except one fragment; but there is excellent late Tudor panelling and brattishing in the dining-room and drawing-room, and framing with simple tracery in the joinery of the minstrels' gallery in the hall. The Elizabethan and later joinery of the rooms near the north-west tower, the curious, though not very beautiful, joiners' work in the chapel, the joinery of the great ball-room, and the doors generally, form a study of great value and varied interest.

Metal work of great beauty abounds. There are not less than five or six pairs of bronze dogs at different hearths, all of them good, and at least two pairs have rich foliated roses that are at once elaborate and excellent. The hinges and fastenings of the drawing-room door, of some of the doors in the chapel, and in some other spots, are exquisite pieces of metal-work; and the casement window-fastenings to many of the windows in the Elizabethan parts of the house are as good as anything of the sort well can be, and all are marked by that absence of attempt to dazzle or attract notice,—in short, by that well-bred reserve and self-restraint which is characteristic of good design as well as of good manners.

Several very elaborate lead rain-water heads, some of them dated, exist in different parts of the building, and are well worth study. Lead lights of a considerable number of patterns and various sizes, can also be found, and they are so largely used that it is possible to gain some indication, from the different varieties, of the dates of different portions of the work.

Before closing these remarks, I propose to turn to the broader characteristics of this ancient monument as a work of architectural art. First, and perhaps most eminently, it has come down to our own day undamaged by fire or by restoration. The sunshine and showers of centuries have acted upon the masonry of the old walls and the freestone of its pavements, and have imparted to them a rich, harmonious, but sober colouring, as precious and as impossible to gain, except through the lapse of time, as the patina on an antique bronze. Happily the duke keeps the place in repair in the most simple manner. Nothing more is done than is necessary to keep out the weather and prevent decay, and we have consequently an almost, if not quite, untouched Domestic work of the Middle and Elizabethan ages.

Next to its condition, the strikingly harmonious unity of effect in buildings erected and altered during so long a space of time deserves notice. This may be to some small extent due to accidental circumstances skilfully made use of, for there is really a wide difference between some of the external fronts; but it is only between those which stand so that each is chiefly seen alone. Still the general harmony is great. The uniform character of the battlements carried quite round the building aids not a little in producing this harmony, a trait which should prove instructive to some of us when we have to enlarge an old building.

The large amount of wall space compared to the window-opening helps to produce a general effect of breadth. Mr. Marnock has pointed out that with our modern ideas this cannot now be attained by the same means as were used in the older parts of the building where the windows are both small and low; but it is worth notice that almost equal breadth has been secured in the Elizabethan part, where the windows are as large as any modern occupant of a mansion can possibly ask for, by the simple expedient of massing them into bays, and leaving grand unbroken wall spaces between them.

Lastly, and this is the great feature of the whole design, the self-restraint and moderation of the various architects who have contributed each his share in building up this dignified whole is most remarkable. There is no obtrusive display of ornament anywhere. There is no breaking through the main lines either of plan or of elevation. Nothing has been introduced which is out of keeping; and if we can learn nothing else from Haddon, we can at least learn in what spirit an architect who has to add to or alter an existing building should set to work.

ARCHITECTURAL ASSOCIATION.

AT the ordinary fortnightly meeting of this Association, on Friday, the 7th inst., Mr. R. E. Pownall, vice-president, in the chair, a vote of thanks was accorded to Mr. E. C. Robins for conducting the members over the Sandall-road Schools, Kentish-town, on the 1st inst., and it was announced that on Saturday next, the 22nd inst., the Association would visit the new Bow-street Police Courts,—of which a view and ground-plan appeared in last year's volume of the *Builder*, pp. 687-689.

Mr. T. Roger Smith then read a paper on Haddon Hall, which we print on other pages.

In the discussion which followed,

Mr. E. J. Tarver, in moving a vote of thanks to Mr. Smith for his paper, said it must be satisfactory to all lovers of ancient architecture that it had not been thought necessary to restore Haddon Hall. One special beauty, he thought, of the large hall, consisted in the way in which, by the use of the bays, the effect of a bright light was got without seeing the windows from the other end of the hall.

Mr. Stannus, in seconding the motion, said that Mr. Roger Smith had very charmingly described in detail the grand old pile of Haddon Hall, bringing back forcibly to the minds of all who had seen it the fine character of the work that yet remained, thanks to its non-restoration. He did not know to what happy concatenation of circumstances they were indebted for that fact, and he feared that if it had been nearer London, "restorers" would not have kept their hands off it. Happily, it remained, and was, he hoped, likely to remain, a precious joy to all posterity, to give pleasure to many succeeding generations of visitors. Mr. Smith had spoken of the wonderful colour which existed on the building, and which imparted a charm which could only be derived from the hand of Time. He hoped that some day the Association, in arranging for its autumn excursion, would visit the district in which Haddon Hall was situate, for it was rich in old Domestic buildings. The Association, in the course of its excursions, had visited churches in plenty, but they had not, he thought, sufficiently visited domestic buildings of note. The Association was very much indebted to Mr. Smith for his paper, and for his great services to the Association in the past.

Mr. S. W. Kershaw, M.A., as a visitor, supported the vote of thanks, and said that there were a great many old Domestic buildings in Derbyshire well worth visiting. One was Hardwicke Hall, in the north-eastern part of the county, where were to be seen some fine tapestry and a good collection of portraits. If the Association ever visited Derbyshire, they would find Mr. J. C. Cox's recently-published account of the churches of the county very useful. Mr. Cox had also written a good general handbook of the county.

Mr. E. G. Hayes, in supporting the motion, said he had lately seen one or two of the Domestic buildings of Kent recently described by Mr. Kershaw in his paper read before the Association.* The principal point which struck him in visiting such buildings was the all-pervading feeling of quiet and repose which characterised them, and which, as had been seen by the views shown on the screen, was a characteristic of Haddon Hall. Mr. Smith's paper, it seemed to him, came very appositely after Mr. Ingress Bell's paper on "Unrest,"†—a quality entirely opposed to the breadth and simplicity of treatment shown in Haddon Hall. Mr. Bell, in his paper, remarked that detail, even when excellent in itself, did not appeal to "the ordinary mind." Now he (Mr. Hayes) should have been rather disposed to dispute that proposition, because, if he understood Mr. Bell rightly, when he spoke of "detail" he meant carved panelling, caps, mouldings, and things of that sort, which were to be found in great profusion upon so many modern buildings. Now,

* *Builder*, pp. 359, 391, *ante*. † *Ibid.*, p. 536, *ante*.

on the contrary, he believed that it was because detail of that sort *did* appeal to the ordinary mind that so many of our modern buildings were overburdened with it. In visiting old buildings such as Haddon Hall, they found scarcely any detail, in the same sense of the word, and yet the building possessed an indescribable charm and harmony. He thought that this quality of quiet and soberness in architecture was one to be studied and cultivated, for it was the opposite extreme of unrest and exuberance in ornament, which did, unfortunately, appeal to the ordinary and uneducated mind.

The Chairman said that Mr. Smith had told the meeting how interesting was Haddon Hall historically, architecturally, and artistically. He agreed with what Mr. Hayes had said as to the happy accident of the paper coming next after Mr. Ingress Bell's essay. The audience must have noticed, in the views thrown on the screen, the almost total absence of what was now generally understood as "detail" from Haddon Hall. There was one plain square-headed window continually repeated and alternating with wall-space. Hardly any roof was visible from any point of view. The situation of the building, no doubt, lent a great charm to it. The whole building seemed to be grafted on to the rock on which it rested. A peculiar charm was lent to the building by the flights of steps, which seemed to abound everywhere. In conclusion, the Chairman said that in visiting such buildings the architectural student would find photography a very useful aid. It was now possible to get very small and handy cameras, and by the dry-plate process it was easy to rapidly take any number of views, and elaborate them at leisure. Not that he advocated the abandonment of sketching,—far from it. This was a point well worthy of consideration by architectural tourists. The thanks of the meeting were due to Mr. Smith, not only for his paper, but for the excellent manner in which it had been illustrated by views specially prepared for it.

Mr. Roger Smith, in reply, said that as the subject of restoration had been referred to in the discussion, he should like to add a word or two on that question in relation to Haddon Hall. That building had not been restored because it had not been lived in for the last hundred years or so. It would be impossible for persons with the ordinary habits of civilised life to live in it without doing a great deal to it to make it wind-tight and weather-tight. The whole building was exceedingly picturesque, but the winds whistled through it in a wonderful way, and, at certain seasons, painters and sketchers were to be seen at work with their heads tied up in red handkerchiefs, and groaning with neuralgia. It would be practically impossible to make Haddon Hall a residence without restoring it. The greater part of the restoration of churches which had been done had mainly been necessitated by the fact that the buildings were needed for use. He quite admitted that things had been done which had better have been left undone, and things cleared away that would have been better left, but the larger proportion of restoration of churches had been necessitated by the deplorable disregard with which those who had the official charge of the buildings during the last three centuries had allowed them to fall to ruin. Haddon Hall had not been neglected during the last three centuries. It had been saved from decay by necessary attention; but if ever the Duke of Rutland made up his mind to go and live there it would be restored; therefore it was to be hoped that his lordship, and his successors, would allow it to remain a delight to artists and architects for all time.

Testimonial to an Engineer.—At the National School-room, Lydney, a testimonial, subscribed for by many friends, has been presented to Mr. G. W. Keeling, engineer of the Severn Bridge. The testimonial consisted of a silver centrepiece for candelabrum, with glasses for flowers. Its base consists of a plateau; on one side is engraved an outline of the bridge, and on the opposite side:—

"Presented to George William Keeling, Esq., civil engineer, by his friends and neighbours, to record their hearty congratulations on his successful completion of the Severn Bridge, opened 17th Oct., 1879."

The testimonial was supplied by Messrs. Martin & Son, of Cheltenham, at a cost of 100 guineas.

THE DECORATION AND FURNITURE OF TOWN HOUSES.

GENERAL ARTICLES OF DOMESTIC USE.

In his sixth and concluding Cantor Lecture,* delivered in the Hall of the Society of Arts on Monday evening last, Mr. Edis treated generally of the many articles of domestic use which were essential in the furnishing of a house, and which should, he observed, be as far as possible as much examples of good taste and design, and of beauty of form and colouring, as the more important works of decoration and furniture. Until, however, there was a demand for better taste in ordinary things, we could hardly expect that the manufacturers would go out of the way to provide it. It was satisfactory to notice that many of the best potters and glass-makers were endeavouring to educate the public taste by introducing into their work imitations of good ancient forms, or by obtaining really good designs from artists who were something more than mere trade designers. They thus succeeded in producing works in which graceful simplicity of treatment, beauty of outline, and artistic skill in ornament and decoration were especially noticeable. In the works of Wedgwood, aided as he was by an artist of the highest ability, Flaxman, we found examples of charming ware, delicate in tone and colouring, and of the most refined Classic treatment, with infinite beauty of design, form, and workmanship; and the lecturer was glad to find that the well-known house of Wedgwood was falling back on the old models, reproducing Flaxman designs, and, as a consequence, offering to the public not only works of great beauty and elaboration, but ordinary breakfast, dinner, and tea services, in which the old forms and shapes were preserved, all of them being infinitely more beautiful than the more modern productions. Some examples of this firm's ware exhibited exemplified the fact that good things might be cheap things. Messrs. Minton, Doulton & Co., the Royal Worcester Porcelain Manufactory, Messrs. Osler, Webb, Powell, & Co., and other manufacturers, had respectively, in their specimens of pottery, porcelain, and glass, spared no pains to improve the design and manufacture of their various wares, which showed immense progress in skill of manipulation and good artistic treatment. Many of the best firms of potters were, he was glad to say, turning their attention to the production of the commonest objects of everyday use, with the view of making them beautiful in form, good in colouring, and graceful in design and decoration. Messrs. Doulton & Co., of Lambeth, had of late years laid themselves out with great success to produce terra-cotta work and pottery of good artistic character. In the stoneware known as Doulton ware they had been eminently successful in producing work not only good in form, but very beautiful in decorative design and glazing, thanks chiefly to their having secured the services of skilful artists and designers, foremost amongst whom were Mr. George Tinworth, whilom pupil and student at the Lambeth School of Art, and Miss Barlow, whose designs and ornamentation of the various works executed under them by Messrs. Doulton were especially good in modelling, design, and decorative treatment. In these days, much anxiety was rightly shown for providing work of brain, eye, and hand, in which the tenderness of touch and fine feeling for taste of the lady portion of the community might be utilised for the general good of humanity and as a means of livelihood to themselves. In painting on china and in artistic embroidery there were ample opportunities, at once legitimate and useful, for the exercise of their skill and taste. In the present fashion for art-needlework there was excellent opportunity offered for ladies to take up work which was specially their own, and which, rightly carried out, lent itself essentially to good decoration in the various hangings and coverings so necessary in all houses. We prided ourselves nowadays on the general purity and excellence of our English glass, and yet how often we saw the most beautiful forms utterly ruined by inartistic engraving and cutting, or coarse and crude colouring. In the numerous modern examples of Venetian glass there was much that was graceful and beautiful in design and treatment, but, unfortunately, the influence of bad designs and a craving after so-called novelty of treatment was doing much to damage otherwise beautiful work, and modern requirements were falling foul of ancient traditions. In glass, as in china, we were seeing imitations of work essentially suggestive of other materials, and utterly subversive of true artistic treatment. The present fashion for colour and variety in glass was inducing English manufacturers to turn their attention to similar work, and Messrs. Powell, of Whitefriars, and other manufacturers, had produced many exceedingly beautiful specimens of artistic glass. In the last Paris Exhibition, Messrs. Powell & Son, Messrs. Webb, and Messrs. Osler, showed collections of glass of high excellence in design and workmanship. But what we wanted nowadays was that our manufacturers should give us good general forms for table use; sconces and candelabra for ordinary rooms, of common-sense and artistic designs; and vases, bowls, and dishes, for ornament and use, of really good form and ornamentation, at a price that should be within the reach of all. In the lower sitting-rooms of most London houses it was necessary to have some sort of lower screen or blind to render the rooms fairly private from the gaze of too-curious passers-by. For that purpose all kinds of contrivances had been carried out, from the old wire-gauze blind, with its general dirty and dingy look and everlasting painted ornament of Greek fret or honeysuckle border, to the curious twisted cane inventions, which were bad in design and infinitely too spotty and strong in colour to be pleasant accessories in any room in which artistic decoration of any kind was thought of. Instead of these coarse and unsatisfactory arrangements, the lecturer suggested that either a pattern of good diaper or other ornament be done on the lower portion of the window glass, by the ordinary means of embossing, or that a second sheet of glass containing the pattern,—which might be done in slight tints,—be fixed on the inside face. Better still would it be to have blinds of what was called jewelled glass in square quarry lights, or good figure or flower decoration in leaded glass, either done in outline and stained in delicate tones of yellow, or worked out in good stained-glass of various colours. These could be made to any height, and fixed inside the sash, so as to be easily removed for cleansing purposes. All this kind of work could be done at the cost of a few shillings a foot super., and would add materially to the charm of a room. In all kinds of silver and electro-plate, bronze, brass, and ironwork in the present day, there was an entire want of taste in form, artistic design, and general treatment. Messrs. Elkington, and other manufacturers of similar standing, had, however, done their utmost to produce metal-work of great artistic merit and perfection in manufacture. But why could we not have, in the ordinary tea and coffee services, and the general articles of table use, whether in silver or electro-plate, and in bronze ornaments, brass and iron door-plates, bell-handles, gaseliers, candelabra, sconces, and other work of the kind, good form and general artistic character, instead of the common-place and trumpery cast and wrought work of grotesque and ugly form now offered to us? In silver and electro-plated work the elegance and simplicity of some of the seventeenth and eighteenth century examples might well be copied at no greater cost to the manufacturer than the grotesque shapes and badly-designed and executed chasing and engraving now produced. Instead of the so-called Mediæval "coronas" and elaborate wrought and twisted brass and bronze gaseljers and brackets, utterly out of place in almost any house or room, and generally extravagantly dear, why could not we have the simpler forms of the later Jacobean days, in which use and suitability were the prominent features of the design? Brass work got dull, and iron and bronze rusted or corroded in the London atmosphere; the simplest forms, therefore, would be found most serviceable and satisfactory. The plainer all the service of the table and the generally-useful fittings of a house were, the better would they be in taste; they would be much more easily cleaned, and much more lasting than those in which elaborate ornamentation was piled up for show. In conclusion, the lecturer insisted that all true art should be the practical rendering, in good taste and in pleasant guise, of all the absolute necessities and requirements of modern life, and that all domestic art was false and bad which ignored the uses to which the furniture, decoration, or general belongings of a house were to be put.

* For notes of the previous lectures, see the *Builder*, pp. 454, 486, and 566, *ante*.

SCIENCE AND THE ANCIENTS.

AT the close of an address on the "Progress of Applied Science in Canterbury," New Zealand, delivered in the Philosophical Institute there, at the opening meeting of the session, Mr. E. Dobson, C.E., president, said,—

The study of Greek and Latin, however valuable as a system of mental training, as affording models for the expression of thought, and as a foundation for a thorough knowledge of the languages of Western Europe, has no further result as a preparation for the active duties of life in that world into which man has been sent "to eat his bread in the sweat of his brow," nor can it for a moment be seriously contended that the study of the licentious obscenities of the Roman poets can have other than a degrading influence on the minds of our youths entering upon manhood.

The excellence of the literature of the Greeks and Romans was the natural reflexion of their national greatness. Their orators did not rise to fame through writing nonsense verses, nor did their authors perfect their style by translating unmeaning commonplaces into the disused languages of fallen nations. They spoke and wrote out of the fulness of their hearts of the stirring events passing before their eyes, and of the national life in which they played no unimportant parts, and hence the nervous simplicity of the language they employed. If the Greeks as poets and historians have left us in their writings models of composition which have never been surpassed, they were also the greatest sculptors and architects that the world has produced, as well as being consummate geometricians, whilst they also excelled in astronomical and medical science. The heroes of the "Iliad," those especially who had been liberally educated, according to the standard of that day, were not mere fighting men, but skilful mechanics, who prided themselves on the excellence of their work, and spared no pains to bring it to perfection. In that episode in the wanderings of Ulysses which is related in the sixth and seventh books of the "Odyssey," and which will be always read with delight on account of the exquisite description of the well-ordered home in Corfu, of which the fair Nausicaa was the brightest ornament, Ulysses is described as being struck with admiration at the sight of the well-piled entrance to the harbour, and we have allusions to the systematic division of the waste lands amongst the first settlers in Corfu, the erection of houses and temples for the use of the new arrivals, and the supply of water to the port town, whilst Nausicaa extols her father's thoughtfulness for his household in bringing through the domestic offices a stream of water by means of pipes laid from the springs in his allotment. Even Nausicaa herself shows her mechanical instinct when she asks her father for the loan of the mule-cart with "high" wheels, that she may lose no time whilst taking the family washing to the public washing-troughs, erected by the municipal authorities near the beach, at some distance from the town. So, again, amongst the ruins of Ephesus, recently laid open by the excavations made under the direction of Mr. Wood, whilst we are struck with the richness of the sculptured decorations of the Temple of the great Diana of the Ephesians, we are brought face to face with evidences of the attention paid to geodesy, as shown by the boundary-stones fixing the widths of the roads and watercourses, and by a decree recorded in one of the inscriptions, that in the division of an estate on the foreclosure of a mortgage, roads must be set out to the homesteads, the temples, and the springs of water. What does all this mean, but that science and art went hand in hand in the training of the Greek, and were inseparably connected with every detail of public and private life?

And when we turn from Greece to Rome in her palmiest days, we find the same state of things to prevail, except that the art was less pure, and that there was a greater development in the direction of mechanical science. At the bottom of the success of the Romans as conquerors and colonisers, lay the broad fact that they were the greatest engineers of the time. Their harbours, their aqueducts, their bridges, their lines of road through Europe, and the public buildings erected wherever their dominion extended, are simply so many illustrations of applied science in a high state of development. If Virgil wrote his "Æneid" to the delight of emperors and the torment of schoolboys, he wrote also on sowing and reaping, the breeding of stock, and the keeping of bees. Cæsar's commentaries would never have been handed down to us as models of *précis* writing, if Cæsar himself had not been an able engineer officer, whose writings are marked by the clearness of arrangement and precision of detail which characterised his movements for the reduction of the Gaulish fortresses; and Cicero's attack upon the tribune Clodius, in which the latter is accused of desecrating the ashes of his Alban forefathers, had for its immediate occasion the laying out of the road through Alba Longa, near Rome, when the engineers employed on its alignment, cut through the ancient necropolis, which even at that remote date had been buried for unknown ages under the tufas of the long extinct volcano of Mont Albano. If, then, we would truly follow the example left us by the Greeks and Romans, we shall, like them, give due prominence in our educational course to scientific studies, bearing in mind that science is but another name for the knowledge of God's works and of His will as expressed in what we term natural laws, and that the better we understand these laws, and the more we live in accordance with them, so in proportion will be not only our material prosperity, but our success in battling with the ignorance, disease, and misery which must ever be present in this world whilst it is inhabited by sinful men.

And what work can be more noble than this? or how can we pay too much honour to those men who devote their lives to the advancement of science, casting, as it were, their bread on the waters of public opinion, and content to take for their reward the satisfaction of having worked for the benefit of their fellow-men. Let this, then, be the spirit in which the work of this and of kindred institutions shall be carried on, each of its members, in his own special sphere of action, carefully recording facts and collecting data for future reference, on all points of scientific interest that come within his observation, without thought of personal distinction or consideration of pecuniary gain; and so by our separate, yet united, endeavours, we may be able to assist in laying broad and deep the solid foundations of a national life greater and more noble than was that of the classical nations of antiquity, and in fostering the growth of a national literature which shall continue to bear fruit after the very names of Greece and Rome have faded into oblivion.

NEW LUNATIC ASYLUM FOR NORWICH.

THE new buildings erected by the Corporation of Norwich for the purposes of an asylum for the pauper lunatics of the city have been so far completed that on the 3rd inst. the contractors, Messrs. Cornish & Gaymer, were able to give formal possession to the Chairman of the Committee of Visitors. A view and plan will be found in our volume for 1877, pp. 479, 481.

The new asylum, of which Mr. R. M. Phipson is the architect, is a substantial red-brick structure, with white brick and stone dressings. It stands upon the edge of the high land which bounds the valley of the Wensum at Hellesdon. On plan it consists of a series of blocks connected by corridors. From the middle of the central block, a line of one-story buildings extends right and left, broken at corresponding intervals on each side by a two-story block, with projecting entrances. Behind, and in a line with each of the two outer blocks, is a three-story block, facing the Wensum, and commanding fine views of Cossey and Bingland. The central is the administrative block; those nearest to it on the right are the infirmary blocks, the outer blocks are for the reception of acute cases, and the larger blocks behind are for the treatment of chronic cases. The duplicate arrangement of the building is of course necessary, as one side will be for the reception of male patients and the other side for female patients. The several blocks consist of a large number of rooms, intersected by corridors, all converging upon the administrative block. The main entrance is by a vestibule into a lofty entrance-hall, which has a suite of rooms on either side,—on one side for officers, committee, dispensary, &c., and on the other side for the medical superintendent. Further on down the entrance-hall are reception-rooms for fresh patients, and for visitors to patients, and at the end is a corridor which crosses it at right angles, leading on the right to the female and on the left to the male side. To the left of the administrative block, on the way to the male side, is a series of store-rooms and a spacious scullery, containing boiler and steaming apparatus, and below these are butcher's shop, ale-cellar, and coal-cellars. Adjoining the scullery is the kitchen, and beyond, across a corridor, is the dining-hall, a lofty, open-timbered, well-lighted building, facing the Wensum valley. The Infirmary Wards, two-storied blocks each, consist of several single rooms and an associated day-room on the ground-floor, and several rooms and an associated dormitory on the first floor. The Acute Ward block consists of several single rooms, three padded rooms, bath-rooms, &c. The Chronic Ward blocks comprise day-rooms on the ground-floor, four large dormitories on the first-floor, and four more dormitories on the second floor, with attendants' rooms, bath-rooms, &c. The attendants on each side in charge of the patients will all be under the eye of the head attendant, whose room will command a view of the whole length of the corridors. The wards on the male side are appropriated as follow:—No. 1, or Infirmary Ward for the sick, 25 beds; No. 2, or Chronic Ward, 80 beds; No. 3, or Acute Ward, 36 beds; Farm Ward, 9 beds; total, 150. The wards on the female side are appropriated as under:—No. 1, or Infirmary Ward, 25 beds; No. 2, or Chronic Ward, 80 beds; No. 3, or Acute Ward, 36 beds; Laundry Ward, 20 beds; total, 161. Thus the wards will accommodate 311 patients, of whom 211 will be lodged in dormitories and 100 in single rooms. But the administrative department is designed on a sufficiently large scale as to be adequate to supply 400 patients. Connected with the night or women's side, by a corridor, is a large building overshadowed by a lofty brick tower. The building is a laundry, and the tower is required for hydraulic purposes. As a precaution against fire, Messrs. Shand & Mason's hose hydrants are placed at different parts of the building on all the floors. The foundations of the building were laid by Mr. J. Downing, builder, of Pitt-street, and the superstructure has been erected by Messrs. Cornish & Gaymer, of North Walsham. The machinery requisite for pumping water, &c., was manufactured by Messrs. Sturgess & Towlson, of Norwich; and the gas-fittings were supplied by Mr. Pank. The total cost of the new building, including land, furniture, approach-roads, architect's commission, and clerk of work's salary, is rather more than 62,000*l.*

NEW COMMERCIAL BUILDINGS IN BUCKLERSBURY.

AN extensive block of new buildings, intended for banking, insurance, or other general commercial purposes, has for some time past been in course of erection at the corner of Queen Victoria-street and Bucklersbury, immediately opposite to the National Safe Deposit Company's premises, and it is now almost ready for occupation. The site upon which the new buildings have been erected, was formerly occupied by Messrs. Horne & Sons, manufacturing chemists, the firm having carried on business there for more than one hundred years, the locality being known as the Old Barge-yard. Like the Safe Deposit Company's premises adjacent, the unseen basement portion of the new buildings forms a considerable part of the whole, the foundations being carried to a depth of 40 ft. below the ground floor, and admitting of the construction of a lower ground floor, a basement, and a sub-basement, the floor of the sub-basement being 30 ft. below the street level, and the foundations beneath the sub-basement being filled in with concrete to a depth of 10 feet. The Bucklersbury frontage is 40 ft. in depth, and is carried to a height of 70 ft. The building contains a lofty ground floor, and five stories above, in addition to three stone dormers which surmount the elevation. The ground-floor portion is in Portland stone, the principal entrance at the east side of the frontage being in polished Dalbeattie granite. At the west side of the elevation there is a carriage entrance to Old Barge-yard and the rear of the building, this entrance having an ornamental elliptic arch, in Portland stone, uniform with the rest of the ground-floor frontage. The main face of the elevation above the ground-floor is in red Suffolk brick, with Portland stone quoins at the angles, and fluted pilasters with capitals in the central portion, also in Portland stone, carried up to the main cornice below the dormers. The

central windows of the several floors are bays, with windows in two divisions on each side, the first-floor windows being surmounted by ornamental mouldings and carving in red brick. Above the second-floor a cornice in Portland stone is carried across the elevation. The building is carried to a depth of 90 ft., the west frontage in Old Barge-yard being partly in white glazed bricks, and partly in white Suffolk bricks. Internally the accommodation is very extensive, the several upper floors being so constructed as to provide upwards of seventy chambers or offices, which will be reached by, in addition to the staircase, a steam-lift fixed in the centre of the staircase, working up from the sub-basement to the top of the building. The engine-room, with the motive power for the steam-lift, will be erected at the upper part of the building, above the fifth-floor, and will be formed of concrete and iron. The machinery will be on Hart's patent, and the steam-lift will be in continuous operation to and from the several floors throughout the day.

Mr. Whichcord is the architect of the building, and Mr. E. Lawrence, of Wharf-road, City-road, the contractor. Mr. Roberts is the clerk of the works, and Mr. W. Quince the foreman. The cost of the structure will be between 14,000*l.* and 15,000*l.*

NEW SCHOOL BUILDINGS AT EAST DULWICH.

SPACIOUS new school buildings, containing reception and other apartments, in addition to the schools proper, are at present in course of erection in Barry-road, East Dulwich, in connexion with the Wesleyan chapel erected there a few years ago, and the formal ceremony of laying six memorial stones was last week performed by an equal number of persons. The site of the schools immediately adjoins the chapel, with which it is architecturally uniform, the materials being yellow and red brick, with stone dressings. The building will cover a large area, being 86 ft. in length, and 40 ft. in width, the principal school being capable of holding 600 children. In addition to the main schoolroom there is also an infants' room, 30 ft. by 20 ft., which is calculated to hold 200 children of the infant class. Another feature in the building is a reception-room, 34 ft. by 28 ft. which, adopting the American designation, is to be called the "church parlour," and it is stated that this is the first place of worship in this country where such provision has been made. This apartment is intended to be appropriated for social gatherings of the congregation belonging to the chapel. There are also special rooms for men and women's religious classes, together with a library, and four children's class-rooms. Altogether the building will contain fourteen rooms, in addition to a kitchen, sculleries, and cooking apparatus in the basement.

The architect is Mr. Bell, who was also the architect of the chapel, the contractor being Mr. Thompson, of Camberwell. Mr. W. C. Selvey is clerk of the works. The contract price for the building is 3,240*l.*

NEW CHURCH AT BROMLEY.

THE church of St. John's, Bromley, Kent, was consecrated on Saturday, the 8th, by the Archbishop of Canterbury. It contains sittings for 700, and consists of a nave, aisles, chancel, with apse aisle for organ and vestry, and quasi transept. Externally, the church is of Kentish rag, and Bath stone from Randell & Saunders's Westwood quarries; the roofs are covered with tiles, and the glass is all simple ornamental work. Internally, the flooring is of deal block solid flooring, and within the chancel-rails of Minton's tiles, by Hawes & Co.; the seating, pulpit, choir, stalls, &c., of pitch pine. The piers and arches of the nave, instead of being of stone, as usual, are all of square red brick, with carved stone caps. Externally, the church looks smaller than it is, owing to the quantity of roofing which is picturesquely arranged, but internally it is a large church, very simple, but quiet and imposing; it is a well-built, substantial work, with no money spent where not absolutely wanted.

The committee originally asked for 5,600*l.*, exclusive of site, and the architect said the work could be done for 5,150*l.* The whole, as originally contemplated, has now been carried out, and, including the amount still required to pew the aisles, the total cost comes to, say, 4,650*l.*, or 500*l.* less than the architect asked for, and nearly 1,000*l.* less than the committee expected to have to find. The cost of the site, and expenses connected with it, was about 684*l.*

The works have been executed from the designs of Mr. George Truefitt, architect, of Bloomsbury-square, by Mr. Crossley, builder, of Bromley. Mr. Dickens was the clerk of works, Messrs. Perkins heated the church, and Messrs. Johnston put up the gas piping and fittings.

DISTRICT SURVEYORS' DEPUTIES.

AT the meeting of the Metropolitan Board of Works on the 7th inst., a discussion took place with reference to a report presented by the Superintending Architect, on a letter received from Mr. John Turner, district surveyor, of East Islington, requesting the Board to sanction the appointment of his son, Mr. J. G. Turner, as his deputy for a further period.

Mr. Deputy H. Lowman Taylor, in some strongly-expressed sentences, protested against the adoption of this course, which had been, he said, far too frequently resorted to. He thought the Board ought to let "these district surveyors" know that, when they became incapacitated, either by reason of advanced age or infirmity, the Board was not obliged nor disposed to be continually re-appointing their sons as deputies.

Mr. Deputy R. Taylor observed that, although the Board might not be able to discharge these district surveyors, or to dispense with their services, they might in this case, for instance, appoint the district surveyor of the neighbouring district to discharge the duties instead of the son of the present officer. He moved that the subject be referred to the Building Act Committee for consideration and report. Mr. Fowler seconded.

After some further discussion (in the course of which some expressions used by Mr. Lowman Taylor with respect to another district surveyor were reprobated by Mr. Freeman), it was agreed that Mr. J. G. Turner should be appointed his father's deputy for a month, and that in the meantime the question should be fully considered and reported upon by the Building Act Committee.

THE VACANT BUILDING LAND ON THE HOLBORN VIADUCT.

THE last of the vacant building land on the Holborn Viaduct belonging to the Corporation was offered to be let by auction,* at the Mart, by Messrs. Fox & Bousfield, on Wednesday. The land consisted of the corner plot, at the east end of the Viaduct, at its junction with Snow-hill, containing an area of 5,279 superficial feet, and having a return frontage of 210 ft. It was described as particularly eligible for the erection of a bank, club, insurance office, company's hall, any public building, or for either a wholesale or a retail trade. The auctioneer said, judging from the value of land in other parts of the City, he considered it was worth at least 10*s.* per foot per annum. The conditions provided that if not let in one lot, the property would then be offered in four lots. The land was put up at a ground-rent of 800*l.* a year for the seventy-two years' lease, 990*l.* being the highest bid, at which it was withdrawn, the auctioneer stating that it had not reached the value placed upon it by the Corporation valuers. The corner plot alone, having a return frontage to Holborn Viaduct and Snow-hill of 106 ft., by a depth of 46 ft., and covering an area of 1,970 ft., was next offered, when 400*l.* per annum was offered for it, advancing to 590*l.*, at which sum it was withdrawn. The three other lots, one having a frontage of 30 ft. to Holborn, and the remaining two each having a frontage of 39 ft. to Snow-hill, were likewise withdrawn. It was intimated in the room that the ground-rent which the Corporation is said to require for the land is from 1,500*l.* to 2,000*l.* per annum.

St. Alban's.—The corner-stone of the St. Alban's Public Library and School of Science and Art was laid on Wednesday, the 5th inst., by Mr. John Chapple, the mayor. The building is designed by Mr. W. H. Syme, architect, of Watford, and is being carried out under his superintendence by Messrs. Rayment, builders, of Hertford, at a cost of about 2,000*l.*

* On a building lease for seventy-two years.

LOCAL UTILISATION OF IRISH STONE

HOPES have for a long time been entertained in Ireland that Irish stone might be found suitable for paving purposes, and it is believed that Ballintoy quarries, county Antrim, and also Bealderrig, county Mayo, have extensive sub-strata of these minerals. Mr. Neville, the Dublin borough engineer, has reported against setts made from flag-stone taken from the Bealderrig quarries, but there are other setts got from the solid rock which he recommends should have a fair trial. The Ballintoy stone has been analysed by Dr. Cameron and Professor Hull, who declare that its properties are excellent for pavements, but Mr. Neville doubts whether it can be supplied in sufficient quantities and sufficient time to be available. He reports against the Bessbrook granite as not to be compared in point of durability with the Welsh granite, but his opinion of the Ballintoy and Bealderrig quarries is highly favourable. As there is to be a sum of 100,000*l.* expended upon the paving of Dublin, it is, of course, desired by many that as much Irish material of a suitable quality as can be obtained should be used, but the first obligation of the corporation is to see that the stones compete successfully with the Welsh stone in point of durability. At any rate, the Irish stone should get a fair trial, and be adopted or rejected as the issue may warrant.

THE LIMIT OF THE DIVER.

WE are informed that it is a part of the invention of Mr. Fleuss to obviate the back pressure of the expired air, of which we spoke as so serious to the diver, by chemical agency. The expired air is made to pass through a chamber containing caustic alkali, which absorbs and fixes the carbonic acid. The nitrogen which is left is used over and over again, being mechanically mixed with a fresh supply of oxygen, which is stored, at a high pressure, between the inner and the outer casing of the diver's helmet.

It is clear that this elegant process, if successful, would obviate the ill-effects of the pneumatic pressure on the valve. There would remain the hydraulic pressure, which it might be proposed to resist by adequately-constructed armour; and the local pressure of which we before spoke on the hands and wrists, which, of course, would augment in proportion to the depth, being all the more formidable for want of a counteracting pneumatic pressure within the diving dress. It is also obvious that the process of admixture of exactly the right quantity of oxygen with the expired nitrogen must be one of extreme delicacy. And a question may arise as to the danger of any fumes from the caustic alkali passing from the purifier with the escaping nitrogen. As to this, it may be said that experiment gives a satisfactory reply. We have only to point out that experiment under the pressure of a few feet of water is very different from experiment at a depth of more than 20 fathoms; and that it is only by trial under the rough tests to which the skill of the diver is exposed that we can be sure that all the conditions of the case are provided for. All the same, the idea of absorption is one of great originality and merit; and we shall watch with a friendly interest the progress of the invention.

We may add, by the way, that Mr. Fleuss writes to us to say he is not a German.

LIGHT CASE.

COATE *v.* CUBITT.

THIS was a motion in the High Court of Justice, Chancery Division, before the Master of the Rolls, by Mr. Coate, of 41, Lisle-street, Leicester-square, for an injunction to restrain Messrs. Cubitt, the well-known builders, and the Royal London Panorama, who are erecting a large building on the site of old Saville-house, from interfering with the ancient lights of Mr. Coate's premises, and also for an order to pull down so much of the wall as was put up since the date of service of the notice of motion.

The building complained of is of great size and elliptical shape, and is intended for a Panorama on the French model. The part of the wall sought to be pulled down was hastily raised during the night of the 22nd of April, after the notice of motion had been given.

The Master of the Rolls granted an injunction against the defendants in the terms of the notice of motion, and ordered them to pull down before Wednesday night so much of their wall as was put up since the date of the service of the notice of motion.

THE SOUTH LONDON TRAMWAYS, AND THEIR COST.

As the whole of the tramways in South London belonging to the London Tramways Company are now being relaid with steel rails, some particulars of the approximate cost of the lines may be interesting. It appears that the expenditure of capital on the lines, with pitched paving between the rails, extended in width to 18 in. on each side of the line, is from 4,000*l*. to 6,000*l*. per mile of single line, according to the price of materials, or from 8,000*l*. to 12,000*l*. per mile of double line. For the supply of cars the cost is set down at 1,200*l*. per mile, and for horses, allowing ten animals per car, to facilitate changing and rest, 1,000*l*. per mile; the total cost per mile of double line being from 10,000*l*. to 14,000*l*. It may be added that the use of mules in the place of horses, on some of the lines, has for some time been largely adopted, the company having at present upwards of 200 of these animals at work. It appears that the cost of the purchase of the mules, as well as their maintenance, is remarkably low as compared with that of horses. It is stated that Spanish mules, which it seems are imported from South America, cost only 15*l*. each, delivered in the company's stables, whereas the cost of horses averages from 40*l*. to 50*l*. each.

WOOD-WORKING MACHINERY AT THE SYDNEY EXHIBITION.

THE local press give full accounts of the various machines, fourteen in number, exhibited by Messrs. F. W. Reynolds & Co., of London. The first machine noticed is a circular saw-table, with a strong parallel fence, and rope feed gear; the fence is movable, by hand-wheel and rack, to suit different size of saw, and can be turned over out of the way, to allow for cross-cutting; this fence has also a fine screw adjustment for the thickness of stuff to be cut, and is provided with a pressure lever to keep the stuff close up to it. The loose pulley is reduced in diameter, and the spindle is provided with an outer bearing, both features which conduce to the reduction of wear and tear in belts and bushes. The feed gear has cone pulleys, and the table has rollers at the ends; altogether it is a useful tool and very moderate in price.

A smaller circular saw-bench has a rising and falling spindle, this enables it to be used for rebating, or grooving, and makes it very useful in many ways for joiners, or jobbing purposes.

Messrs. Reynolds have been largely instrumental in introducing an arrangement of band-saws having three pulleys; this allows of the use of a longer saw, and is an advantage in many ways. These band-saws are made separate or in combination with a circular saw. The end of the circular-saw spindle is fitted to take augers, and a small boring-table is attached, fitted with sliding top, made to be driven by power. It comprises a circular-saw table, fitted with a rising and falling saw spindle, to enable it to do rebating, tenon-cutting, or grooving, and is provided with a very handy fence; it also combines with the circular saw a complete band-sawing apparatus. The frame of the band-saw is of the form of the letter G, and is bolted to one corner of the circular bench. The upper and lower pulleys are carried at the top and bottom of the bow of the frame, and the small table of the G, which is hung on a pin, is enabled to cant so that the band-saw can do bevilled work. The saw itself passes around the two pulleys on its own frame, and also round a third one, which is the driving-pulley. This last one is carried on to the end of a countershaft attached to the circular table, and has a belt-pulley, like the circular spindle, to take the motion from the main countershaft. The main countershaft is carried in brackets cast on the frame of the large table, and has one loose and two fast pulleys; the loose pulley is in the centre, and is smaller in diameter, the same as in Fay's and other machines, to reduce the strain on the belt when not working; the fast pulley on one side is attached direct to the driving pulley of one saw, and they run loose together on the countershaft; the other fast pulley is keyed to the countershaft, and drives the pulley for the corresponding saw, which is keyed on the opposite end. By this arrangement either machine can be driven.

Another class of machines very largely made by Messrs. Reynolds & Co. are hand-power mortising machines, of which they show seven different varieties; these are patented under the respective names of the "Monarch," "Royal," "Hercules," "Imperial," "Eclipse," "Southwark," and "The London." All of them have some special features, either to adapt them to a particular class of work, or otherwise recommend them, and all are complete on an iron stand. The "Monarch" has four legs, a single tool-slide, connected to the lever by a short link, and a sliding bed with rack motion. The "Royal" has, instead of a link connexion, a rack cast on the tool-box slide, and a pinion on the fulcrum of the lever; this gives a more equable motion. The table has a slide motion in two directions; the "Royal" is especially adapted for hard wood. The "Hercules" is a large machine, about double the price of the last. It is able to take timber up to 12 by 12, and is overhung so far that the back fence can be put back 11 in. behind the tool, so that mortises can be made near the side of a piece of timber without turning it round end for end. The "Imperial" has a bottom frame all cast in one piece, with spreading legs. The tool-slide has a rack on the back, engaged by a segment on the lever-axle. A boring attachment is carried on the sliding block, quite independent of the mortising chisel. The special peculiarities of the "Eclipse" machine consists of the use of a toggle-joint action, to communicate the motion of the lever to the tool-slide.

SERIOUS FIRE IN THE GRAY'S-INN-ROAD.

ON Friday, the 7th inst., at 10·30 p.m., a very destructive fire broke out on the premises of Messrs. Frederick Sage & Co., 80 to 84, Gray's-inn-road, and 25, Portpool-lane, shop-front fitters and cabinetmakers. The fire was first discovered raging in the steam-works in Portpool-lane, and within five minutes the whole place was a seething mass of flame, which illuminated the entire metropolis. The brigade was at once communicated with, and engines from all parts were sent to the scene of the conflagration. The efforts of the firemen were necessarily confined to saving the adjacent property, some of which is old and largely constructed of wood, and the greater part of which is tenanted by the poorest classes. The flames spread from house to house with great rapidity. A portion of Messrs. Sage's premises is gutted, and the adjacent property is much damaged. The whole neighbourhood is intersected by close confined courts, and the premises of Messrs. Sage, in Gray's-inn-road, are situated between Verulam-street, a narrow lane tenanted by the poorer classes, and Queen's Head-court. One side of the latter court has been recently pulled down, the other side being composed of Messrs. Sage's premises, a book-binding factory, and other large premises, all of which have suffered in a greater or less degree. The loss in connexion with Messrs. Sage's premises and their contents alone is estimated at 12,000*l*., and 150 men have been temporarily deprived of work by the calamity. The damage to Messrs. Sage's property is thus officially reported by Captain Shaw:—"A range of buildings of three and four floors (used as workshops, saw-mills, and timber stores), about 140 ft. by 110 ft. burned out and the roofs off; workshops of four floors, about 90 ft. by 30 ft., two upper floors burned out and roof off, ground-floor and contents severely damaged by fire, and basement and contents by fire and water." Messrs. Sage request us to state that their show-rooms remain intact, and that they have made temporary arrangements for carrying out all business in hand.

The poor people living in the houses adjoining Messrs. Sage's factory seem to have suffered severely, and a meeting on their behalf was held on Tuesday at the Holborn Town-hall. The Earl of Shaftesbury, who presided, read a letter from Mr. Sage, enclosing a cheque for 25*l*. in aid of the relief fund, although, the writer said, he should be a loser through inadequate insurance.

Norwood Waterworks.—The first stone of the Norwood (Middlesex) Waterworks was laid on the 11th at the pumping station, situated close to the Southall Station on the Great Western Railway. The business is in the hands of a company based on the limited liability principle.

BUILDERS' BENEVOLENT INSTITUTION.

THE fifty-third election of pensioners on the funds of this institution took place on Thursday last at Willis's Rooms, St. James's, Mr. F. J. Dove, president, in the chair.

There were vacancies for two men and three women, and the candidates numbered two men and six women, viz., William Charles Read, aged 66 (second application); Thomas Barnes, aged 42, and totally blind (first application); Mary Ann Hibberd, aged 66, widow of Daniel Hibberd (third application); Mary Ann Garner, aged 64, widow of William Garner (second application); Selina Thomas, aged 72, widow of Charles Thomas (second application); Elizabeth D. Stenteford, aged 60, widow of J. B. Stenteford (second application); Anne Boulton, aged 60, widow of W. N. Boulton (second application); and Martha Sidwell, aged 78, widow of John Sidwell (first application).

Shortly after the close of the poll at three o'clock, the scrutineers, Messrs. Thomas Stirling and T. F. Rider, announced the result of the voting to be as follows:—Read, 2,158; Barnes, 839; Stenteford, 5,556; Sidwell, 4,391; Hibberd, 3,323; Garner (including 80 votes due to her on account of her husband having been a subscriber to the Institution for eight years), 2,217; Thomas, 1,426; and Boulton, 828. The President, therefore, declared that the successful candidates were Read, Barnes, Stenteford, Sidwell, and Hibberd.

Votes of thanks were given to the Chairman (who pleaded for increased support for the Institution), to the scrutineers, and to other friends of the Institution, for their services in connexion with the election.

METROPOLITAN BUILDING ACT, 1855.

PRODUCTION OF DRAWINGS TO DISTRICT SURVEYOR.

At the Marlborough-street Police-court, on Monday, Mr. Newton was engaged for some hours in dealing with a series of summonses taken out under the above Act by Mr. Robert Walker, district surveyor of St. Martin's-in-the-Fields.

The first case considered was that in which he summoned Messrs. Kirk & Randall, builders and contractors, for not having complied with his notice to produce and show to him for his inspection, at his office, the plans and sections relating to the works being executed by them at the Civil Service Stores in the Haymarket.

Mr. Poland, barrister, represented the defendants.

Mr. Walker said that in accordance with the arrangement arrived at when the summons against Messrs. Dennett & Co. in respect to the same premises, was heard, Messrs. Kirk & Randall had given him formal notice of the works; but they had not submitted the drawings to him, and hence this summons.

In answer to Mr. Newton, Mr. Poland said his clients had the plans, and were willing to produce them at the works at any time Mr. Walker might please to call there. He denied that Mr. Walker had any right to insist on the builders taking the plans to his office. The Act of Parliament required that in cases of public buildings the plans should be deposited with the district surveyor; but in cases of private buildings they were only required to produce the plans for his inspection.

Mr. Walker said these proceedings were taken under the recent Act (41 & 42 Vict., chap. 32, sec. 16), which empowered the Board of Works, subject to the approval of the Secretary of State, to make bye-laws. The Board had accordingly made a bye-law to this effect:—"That on notice being given to the district surveyor of the intended erection or alteration of or addition to any house, building, or other erection other than a public building, the district surveyor may, if he think fit so to do, by notice in writing, require the person giving such notice to produce a plan or plans and sections of any such house, building, or other erection, or of the intended alterations or additions thereto for his inspection." Under that bye-law he had given the defendants notice to produce the plans of 28, Haymarket, and they had failed to obey the notice. The notice, which was in the terms of the printed form prepared by the Board of Works, required them to produce the plans at his office, and he maintained that that was in accordance with the law, because the 98th section of the Building Act, 1855, provided (sec. 98, rule 4) that "a notice, summons, or order may be served on any district surveyor by leaving the same at his office."

Mr. Poland contended that the provision just quoted had nothing to do with the case, being evidently intended only to meet the case of persons who were not to be bound to serve notices personally. In this particular instance it might matter very little whether Mr. Walker went to the works to see the plans, or whether the builders sent the plans to his office for inspection, but in cases of very small buildings, or in cases where the works were a greater distance from the district surveyor's office, it would involve great trouble and inconvenience, besides the expense of duplicating the plans, if Mr. Walker's claim to have the plans produced at his office, instead of on the works, was admitted. The bye-law imposed no obligation on the builder beyond that of producing the plans for inspection, and that might be most conveniently done at the works; there was nothing said about his taking them to the surveyor's office.

Mr. Walker urged that that was the intention of the bye-law, as was shown by the notice-form prepared by the Board of Works, in which the words, "for my inspection at my office," occurred.

Mr. Newton said the Board of Works form was not binding. If the plans were to be taken to the surveyor's office in the case of every private building, it would in-

volve, in many instances, the duplication of the plans, and Mr. Walker had no right to expect that.

Mr. Walker urged that it would be impossible for him properly to inspect the plans on the works, where there was no accommodation for him, and where he could not have at hand the materials for making all these measurements and calculations which it was necessary for him to make in order to fill in the returns which it was his duty to send to the Board.

Mr. Newton thought the notice form requiring the plans to be produced at the surveyor's office was wrong in law. At the same time the surveyor was entitled to see the drawings, and he had no doubt the defendants would do what was right.

Mr. Walker said he was not so sure about that. He had been to the works, and had been insulted and treated discourteously.

Mr. Newton, after further discussion, said he must dismiss the summons.

Mr. Walker.—On the plea that I have asked them to produce them at my office instead of at the works?

Mr. Newton.—They say they will produce them at the works.

Mr. Walker.—I have a letter from the builders, in which they say the architect told them not to produce them.

Mr. Poland.—Not at your office.

Mr. Walker.—I shall ask for a case.

Mr. Newton.—Certainly.

Mr. Walker.—I must report your decision to the Board, and leave them to fight it out.

Mr. Newton said that although he had decided entirely in favour of the defendants, he would suggest that, under the circumstances, and to prevent ill-feeling, it might be advisable that the defendants should take the plans to Mr. Walker's office, merely for him to look at.

Mr. Poland, after consultation with his clients, said they would so far accede to the suggestion as to send the plans down to Mr. Walker, instead of compelling him to come to the works to see them, but he was afraid a further question would have to come before his worship hereafter as to what plans Mr. Walker was entitled to see and what he was not. They would agree to send him all the contract plans signed by Kirk & Randall.

Mr. Newton.—Why not let him see all the plans without reserve?

Mr. Poland.—I do not know, but it may well be he is not entitled to see some of the plans. You must remember that under the Building Act ironwork is excepted altogether.

Mr. Newton.—Why make any mystery about this matter?

The summons was then dismissed, Mr. Walker giving notice of appeal.

DISPUTE AS TO A CHIMNEY AT THE "CRITERION."

AT a meeting of the Metropolitan Board of Works on the 7th inst., considerable time was devoted to the consideration of a matter in dispute between Mr. Robert Kerr, district surveyor for St. James's, Westminster, and Mr. Thomas Verity, architect (already mentioned in our pages), as to the construction of a chimney at the "Criterion," in Piccadilly.

Mr. George Vulliamy, the Superintending Architect, presented the following report on the subject:—

"The matter was first brought under the notice of the Board by a letter from Mr. Kerr dated the 10th day of March last. This letter was referred by the Board to the Building Act Committee, by whose direction I had an interview with the parties to the disagreement, with a view of reconciling the difference between them. I was unable to effect any arrangement, as Mr. Verity declined to make any alteration or addition to the chimney as constructed, and it is for the Board to determine the disagreement, in the manner prescribed by the 30th section of the Building Act.

The chimney in question exceeds the height allowed by the Building Act, being more than six times the least width in height, contrary to rule 10, section 20. It is 37 ft. 3 in. high above the level of the flat roof adjoining upon one side, and about 28 ft. above the top of the ventilating-shaft on the other side. The greatest width of the chimney is 5 ft. The chimney is stayed by copper guy-ropes in three directions. The district surveyor considers these stays insufficient, and suggests that an additional stay of H-iron, 9 in. deep, secured at the foot with a wrought-iron strap passing round the chimney, should be provided, in the manner shown upon the ½-in. scale drawing supplied by Mr. Verity.

The suggestion appears to me to be a reasonable one, and the Board will perhaps be disposed to approve of the chimney as constructed, on condition that the additional stay required by the district surveyor be carried out to his satisfaction."

Both parties to the dispute were in attendance, and Mr. Kerr, in reply to questions from the Chairman (Sir James McGarel Hogg) and other members of the Board, said he did not consider the chimney safe in its present condition: it required more stay. Mr. Verity said that the height of the chimney had been measured from the level of the flat roof, but he contended that he was entitled to reckon its height from the highest point of support. Moreover, the chimney was not constructed in the usual way of ordinary 4½-in. brickwork, but was constructed in cement, and stiffened by three iron ties. As a matter of fact, its height only exceeded by 3 ft. 3 in. the height allowed by the Building Act above the base of support. It was, too, part of what the Board had decided to be a public building, and as such was, he maintained, specially exempted from the provisions of the Act.

Ultimately, the matter was referred to the Building Act Committee, at whose meetings Messrs. Kerr and Verity were requested to attend.

MODELS OF CATHEDRALS.

SIR,—Many of your readers who, like myself, are going down the hill of life, will remember the name of William Gorringe, of Cheltenham, architectural modeller. Few have surpassed him in the delicacy and faithfulness with which he represented every detail or moulding. I feel sure that many architects who in past years employed him will concur in what I say, and when I mention that he was frequently employed by Messrs. Bellamy & Hardy, of Lincoln, and Mr. Hansom, of Clifton, I think your readers will be satisfied that any work done by him is correct and faithful.

Some fifteen years ago I knew him in active work, and when fortune, some few weeks since, found me located at Cheltenham, I was glad to see him still well and active, although age and infirmities prevented him from any further work. During his long and active life, William Gorringe has been an enthusiast, and has devoted many years to the production of models of all the English and many of the Continental cathedrals. Without payment, or any prospect of payment, he visited, drew, and modelled these beautiful buildings, and nothing can exceed the truth and finish of the work thus undertaken as a pure labour of love.

Looking over these models, which are all on one uniform scale, it struck me that it would be well if they could be secured for the Architectural Museum, as they give a better idea than drawings of the comparative size and arrangements of the different buildings.

I have therefore ventured to address you to ask you to mention the subject in your columns. I have ascertained that 200*l.* would purchase the whole of the thirty-five models, a list of which I subjoin; and, if a subscription were raised for the purpose, I, for one, should be pleased to contribute 10*l.* I enclose my card.

X. Y. Z.

LIST OF MODELS.

English Cathedrals.—1. Ripon; 2. Durham; 3 Salisburr; 4. Oxford; 5. Worcester; 6. Exeter; 7. Chichester; 8. Peterborough; 9. Norwich; 10. Winchester; 11. Canterbury; 12. York; 13. Chester; 14. Wells; 15. Bristol; 16. Hereford; 17. Gloucester; 18. Lichfield; 19. Ely; 20. Rochester; 21. St. Paul's; 22. Carlisle; 23. Lincoln.

Continental Cathedrals.—24. Antwerp; 25. Milan; 26. Strasburg; 27. Cologne; 28. St. Peter's; 29. Vienna; 30. Amiens; 31. Notre Dame; 32. Chartres; 33. Rouen; 34. Evreux; 35. Beauvais.

MASTERS AND MEN.

Oldham.—The strike of operative painters is at an end, the following resolutions being carried at a joint meeting of masters and men:—"That the operatives return to work at 7d. per hour, and work until June 19 at that rate, and that the Oldham Master Painters' Association undertake to give 7½d. per hour on and after June 19." No further alteration of wages is to take place this year.

Welsh Slate Trade.—Owing to the continued depression in the slate trade, notices have been given at the quarries belonging to the Welsh Slate Company, and other important workings in the Festiniog district, that it has been found necessary to reduce the working days to four weekly.

Miscellanea.

Metropolitan Water Supply.—The committee of the Society of Arts, having met several times, and given attention to the expediency of holding a Conference on the Supply of Water in the Metropolis at the present time, and having confidence that the supply of the best water to the metropolis will be fully considered by her Majesty's Government at an early period, reported that they were of opinion that no conference should now be held, and the Council have accordingly resolved not to summon the conference as proposed.

Competition, — Halesworth Hospital.—The trustees of the proposed Patrick Stead Hospital, at Halesworth, having referred the designs sent in to Mr. J. K. Colling, the plans of Mr. Henry Hall, F.R.I.B.A., were recommended by him, and the trustees have appointed him to carry out the work. The designs prepared by Mr. Edward Pearce, of Norwich, were placed second. Upwards of twenty sets of plans were received.

Artists' General Benevolent Institution. The sixty-fifth anniversary dinner of this Institution took place on Saturday last at Willis's Rooms, under the presidency of Lord George Hamilton, M.P. The institution, founded in 1814 for the relief of distressed artists, their widows and orpans, relieved during last year 115 applications with the sum of 2,677*l.*, in sums varying from 10*l.* to 60*l.* From the establishment of the institution to January, 1880, 3,544 donations had been granted, in sums amounting in the aggregate to 53,850*l.* In proposing the toast of the evening, "Prosperity to the Artists' General Benevolent Institution," the Chairman referred to the special claims of the institution, the kind of distress and destitution which it undertook to relieve, and the delicacy and effectiveness with which it mitigated the privations which through its agents it had detected. It had often, he said, occurred to him when he saw a multitude of the outside public at Burlington House enjoying themselves with the inspection of the works of art there exhibited, what was the reverse side of the picture. Did every one of these exhibitors, by whose inspiration their minds were elevated, and his best sympathies worked up, receive in pounds, shillings, and pence a fair recompense for his thought, toil, and anxiety? One of the most characteristic, and not the least sagacious, rules of the society was that the name of no recipient of its charity should be published. Therefore cases could not be revealed which would prove that even amongst annual exhibitors, — men whose subsequent career showed the possession of undoubted talent and industry,—there had been cases of such dire destitution as to necessitate immediate attention. Before relief of any kind was given special inquiry was made, indolence and incapacity in no sense constituting a claim on the fund. He commended the admirable manner in which the orphan fund was administered, and concluded by impressing upon his hearers that the prosperity of the institution vitally depended upon the response given to the appeal which he now made to them on its behalf. The other toasts included "The Royal Academy," to which Sir F. Leighton responded, who gave "The other Societies connected with the Fine Arts," for which Mr. Geo. Godwin returned thanks. Subscriptions amounting to 2,800*l.* were announced in the course of the evening. Mr. Hardwick and Mr. Millais are the moving spirits of this Institution.

Predisposing Causes of Disease.—This was the subject of a lecture,—the first of a drawing-room series, under the auspices of the National Health Society,—delivered by Dr. W. B. Carpenter, F.R.S., at the residence of Mr. C. Matthews, 23, Hertford-street, Mayfair, on the 6th inst. The lecturer limited his discourse to the predisposing causes of "zymotic" diseases,—diseases termed variously "fermenting" and "preventable,"—such as fever of various kinds, which arose from the introduction of special poisons into the system. Such diseases, he said, were capable of multiplying themselves indefinitely, and passing from one individual to another throughout a whole community. Susceptibility to take them, he held, came in some cases from a poisoned condition of the blood, arising from the body retaining some portion of the wastes which should be cast off. These wastes were re-absorbed into the blood, and acted as a ready soil from which disease would germinate. With the blood in an impure state, there was the predisposition to zymotic disease; and bad water, poisoned air, or improper food would in some cases induce the zymotic diseases to develop rapidly. He cited instances showing that over physical or mental fatigue, sleeping in unventilated places, the use of improper food, and the consumption of alcohol, predisposed to diseases of the fever and cholera type. The other lectures of the course are by Dr. Samuel Wilks, F.R.S., on "Overwork and Underwork" (May 13); Professor E. Ray Lankester, F.R.S., on "Germs,—Unseen Enemies" (May 20); and Dr. Ernest Hart on "The Doctor in the Kitchen" (May 27).

Drury Lane.—Mr. Augustus Harris has strengthened his bill by the production of a *ballet d'action* entitled "Les Sirènes." It includes two brightly-painted scenes, brilliant costumes, and some dancing that is better than ordinary.

The "Crown" Patent Floor Cramp, introduced by Messrs. F. W. Reynolds & Co., Southwark, in 1878, having proved a great success, the 50*l.* stamp duty has now been paid.

The Norwich School Board and their Architect.—At a meeting of the Norwich School Board, on the 3rd inst., Mr. Burgess moved, pursuant to notice:—

"That, bearing in mind the fact that the school accommodation for the city is now nearly supplied, and with a view to economising the expenditure of the Board, it is desirable in all future buildings contemplated to place out to public competition the preparation of the plans; and that, instead of the present high-salaried architect, a consulting surveyor should be appointed, at a salary not exceeding 60*l.* per year."

It appeared, in the course of the discussion, that Mr. Brown, the architect to the Board, was, in April, 1874, appointed consulting surveyor to the Board, at a salary of 40*l.* per annum, to cover all works within the amount of 100*l.*, and all works above that sum to be paid for by the ordinary commission. This system continued in operation until the 10th of July, 1878, when the Board appointed Mr. Brown architect to the Board, at a salary of 250*l.* per annum, to cover all charges and commission. Mr. Burgess contended that "by putting the preparation of plans out to public competition, the Board would get the advantage of diversity of talent and variety of ideas," and would save money into the bargain. The accuracy of these conclusions was, however, challenged by several members of the Board, and the motion, which was seconded by another member of the Board, merely for the sake of replying to some of Mr. Burgess's statements, was lost, only the mover voting for it.

A Warning to Tottenham.—Mr. P. Gordon Smith, who resides in this district, writes,—"Our parish is increasing by 'leaps and bounds,' houses are springing up everywhere like mushrooms, and still our Local Board have failed to adopt proper building regulations, and exercise no supervision over house construction. We find vast numbers of houses being built with drainage into cesspools, the drains themselves utterly unventilated, and unprovided with any means for preventing the entry thereto of cesspool-air or sewer-air; soil-pipes unventilated, sink-pipes directly connected with drains, foundations hopelessly damp, and so forth. We find the majority of the sewers are unventilated, and the ditches and water-courses are turned into vast receptacles for decomposing filth. How it is that the stream which crosses the Harrow-road, opposite the Coach and Horses, is allowed to remain in the condition it has been in for years past is indeed a mystery, and, as it seems to me, points to grave neglect of duty somewhere. This state of affairs certainly presents a sad picture, but it is a true one. Can it not be remedied before it is too late?" We echo the inquiry, and advise the Local Board not to neglect it.

Continental Passenger Traffic.—On Saturday, the 8th instant, the *Adelaide*, a steel paddle steamer, intended for the Great Eastern Railway Company's Harwich Route to the Continent, was successfully launched from the yard of the Barrow Shipbuilding Company. The christening ceremony was performed by Mrs. Simpson, the wife of Mr. Lightly Simpson, one of the directors of the Great Eastern Railway Company. The dimensions of the *Adelaide* are:—Length, 260 ft., beam 32 ft., with a gross tonnage of 960 tons, and accommodation for nearly 200 passengers. She is fitted with compound oscillation surface condensing engines of 1,600 indicated horse-power. She is expected to be running between Harwich and the Continent next month. The *Lady Tyler*, another addition to the company's fleet, built on the Tyne, is expected to commence running at the same time.

East Anglian Art Society.—The first annual meeting of this society was held at Norwich on the 6th inst. The object of the society is the acquisition and preservation of works of the East Anglian masters. The report stated that the total number of pictures and drawings now in the collection is thirty-five, and it is hoped, as this society becomes better known to the possessors of works of the Norwich School, that in some cases a provision may be made for ultimately placing them in the permanent gallery which it will be the endeavour of the society to establish.

A Stained Glass Window has recently been placed in Chewton Mendip Church, by Lord Carlingford, to the memory of his wife, the late Countess Waldegrave. The window consists of three lights, containing life-size figures of Faith, Hope, and Love, and was executed by Messrs. Heaton, Butler, & Bayne, of London.

A Water Company Fined.—At the Southwark Police Court, on the 8th inst., the Secretary of the Southwark and Vauxhall Water Company was summoned before Mr. Bridge by Mr. Joseph John Kain, the owner of several small houses in George-row, Bermondsey, to show cause why they refused and neglected to supply water to No. 21, thereby depriving the inmates of that and four adjoining houses of the requisite supply. The defence was that some of the houses had defective fittings. After hearing the evidence at length, the magistrate said he must decide against the company, but as the latter had not acted recklessly in the matter, he should merely inflict a nominal penalty of 10*s.* and 1*s.* for each of the three days the water was discontinued, making in the whole 13*s.*, and 2*s.* cost of summons.

Speculators and Builders will be interested to notice that the hitherto dormant village of Ilford, Essex, is to be aroused from its apathy by that important magnet of attraction,—a large sale of building sites. The Clements Estate, adjacent to the station, is to be developed and sold in plots in a series of auction sales, the first of which takes place at the Angel Inn on the 27th inst., conducted by Messrs Protheroe & Morris, notice of which is in our advertising columns.

Technical Education of Coachmakers. An exhibition of carriage drawings and other artistic productions of pupils attending St. Mark's Drawing and Technical School for Coach Artisans, George-street, Grosvenor-square, is now open at the Carriage Bazaar, King-street, Baker-street. One of the features of the exhibition is a collection of engravings, drawings, and photographs of old stage-coaches, chariots, curricles, and other vehicles of a bygone time.

The Royal Scottish Academy.—The Exhibition of the Royal Scottish Academy was closed for the season on Saturday last. In regard to works of art sold the total sum realised has been somewhat less than last year, the figures being, for 1879, 7,127*l.* 15*s.*; for 1880, 6,462*l.* 14*s.*, being a deficiency of 665*l.* 1*s.* The money taken at the door is, however, considerably in excess of last year, the augmentation being largely due to an increase in the number of evening visitors.

Sewage of Hertford.—The Corporation of Hertford have agreed with the Rivers Purification Association to continue the treatment of the sewage of that town at an increased annual subsidy of 650*l.* instead of 550*l.*

TENDERS

For repaving streets in the borough of Wisbech. Mr. Henry Pooley, surveyor:—

Holland, Leicester	£3,597	0	0
Cook, Spalding	3,316	14	7
Jones & Fitzmaurice, Birmingham	2,859	2	9
Barwell, Spalding	2,844	11	0
Rutty, London, for Aberdeen or Guernsey stone	3,814	0	0
Rutty, London, for Mount Sorrel stone	3,751	0	0
Finnegan, Northampton (accepted)	3,623	14	1

For the erection of premises, No. 9, Philpot-lane, for Messrs. Forster & Son. Mr. Chas. Bell, architect. Quantities supplied by Mr. Lovegrove:—

King & Son	£3,470	0	0
Wontner Smith	3,379	0	0
Thompson	3,174	0	0
Ashby & Horner	3,170	0	0
Woodward	3,100	0	0

For alterations and additions to the Lambeth Baths, Westminster Bridge-road, for the Lambeth Baths and Washhouses Co., Limited. Mr. Ellis Marsland, architect:—

Downs & Co.	£919	0	0
Marsland	896	0	0
Lapthorne & Co.	833	0	0
Downs (accepted)	607	0	0

For a new wing, Easton-street, High Wycombe, for Mr. F. Wheeler. Mr. Arthur Vernon, architect:—

Hitchcock	£563	13	6
Silver	560	0	0
Harris	510	10	0
Hunt	496	0	0
Loosley (accepted)	495	0	0

For pair of small houses, High Wycombe, Bucks. Mr. Arthur Vernon, architect:—

Taylor & Grist	£725	10	0
Silver & Sons	650	0	0
Hunt	625	0	0
Loosley (accepted)	570	0	0

For building the presbytery house to St. Mary's Church, Cadogan-street, Chelsea. Mr. J. F. Bentley, architect. Quantities supplied by Mr. W. B. Catherwood:—

Shaw	£2,289	0	0
Colls	2,322	0	0
Clemence	2,195	0	0
Nightingale	2,125	0	0
Lawrance	2,016	0	0
Adamson	1,993	0	0
Stimpson	1,956	0	0

For rebuilding Nos. 56, 58, and 60, Wigmore-street, Cavendish-square, for Messrs. Ives & Sons. Mr. E. Colman, architect. Quantities supplied by Mr. Warburton Stent:—

Hatfield	£4,295	0	0
Sawyer	3,987	0	0
Bywaters	3,929	0	0
Clemence	3,699	0	0
Macey & Sons	3,540	0	0
Simpson & Son	3,530	0	0

For three villa residences at Shoot-up-hill, Kilburn, for Mr. Frederick Seaton. Mr. Downs, architect. Quantities supplied by Messrs. Widnell & Trollope:—

Sheffield & Prebble	£7,973	0	0
Stimpson & Co.	7,866	0	0
Manley	7,837	0	0
Morter	7,643	0	0
Nightingale	7,594	0	0
Lawrence	7,533	0	0
Andrews	7,518	0	0
Scrivener & Co.	7,511	0	0
McLachlan & Sons	7,478	0	0
Shepherd	7,473	0	0
Jackson & Todd (accepted)	7,200	0	0
King*	5,908	0	0

* Withdrawn, error discovered of £1,260.

For widening the jetty at Town Quay, for the Harbour Board of the port of Southampton. Mr. D. Geddes, engineer. Quantities supplied by Mr. J. Poole:—

Hill & Co.	£6,580	0	0
Sanders	5,775	0	0
Bull & Sons	5,550	0	0
Green & Burleigh (accepted)	5,444	0	0
Donkin	4,950	0	0

For the erection of new schools at Wood's-road, Peckham, Lambeth Division, for the School Board for London. Mr. E. R. Robson, architect. Quantities supplied by Mr. T. Thornton Green:—

Wardrop	£6,997	0	0
Chappell	6,917	0	0
Nightingale	6,783	0	0
Thompson	6,743	0	0
Wall	6,720	0	0
Lathey, Bros.	6,584	0	0
Brass	6,548	0	0
Tyerman	6,530	0	0
Higgs & Hill	6,494	0	0
Kirk & Randall	6,368	0	0

For house and shops at Mansfield, for Mr. W. B. Pegg. Mr. Aug. H. Potter, architect. Quantities by Mr. Morgan H. Young:—

Frisby, Mansfield	£3,754	17	0
Fisher Bros., Mansfield	3,678	6	0
Hudson & Facon, Nottingham	3,635	12	0
Wheatley & Maule, Nottingham	3,550	0	0
Judd & Cooper, Nottingham	3,534	8	0
Bulling, Ollerton	3,435	0	0
Alsop, Mansfield	3,456	16	0
Vallance, Mansfield	3,380	0	0

For additions and alterations to Wornington-road Schools for the School Board for London. Mr. E. R. Robson, architect. Quantities by Mr. W. H. Barber:—

Wall	£4,500	0	0
Braid & Co.	4,436	0	0
Nightingale	4,399	0	0
Chappel	4,387	0	0
Rankin	4,230	0	0
Grover	4,213	0	0
Williams, Son, & Wallington	4,140	0	0
Stimpson & Co.	4,130	0	0
Hook & Oldrey	4,063	0	0
Higgs & Hill	3,964	0	0
Kirk & Randall	3,907	0	0

For the erections of Christ Church, Wornington-road, North Kensington. Mr. J. E. Catte, architect:—

			If red facing in lieu of stocks.	
Adamson & Son	£5,190	0	£138	0
Tyerman	5,150	0	179	0
Manley	4,921	0	150	0
Lathey, Bros.	4,897	0	93	0
Hook & Oldrey	4,894	0	89	0

For the erection of Baptist Chapel, Haven-green, Ealing. Mr. J. Wallis Chapman, architect. Quantities by Messrs. J. B. Goodchild & Son:—

Waterman	£7,145	0	0
Temple & Foster	7,029	0	0
Dove, Bros.	6,845	0	0
Hook & Oldrey	6,519	0	0
Adamson & Son	6,226	0	0
Taylor & Grist	5,991	0	0
Allen	5,721	0	0
Nye	5,654	0	0

For the erection of new schools and offices at Manchester-street, King's-cross, in the Marylebone Division, for the School Board for London. Mr. E. R. Robson, architect. Quantities by Mr. W. H. Barber:—

Pritchard	£5,043	0	0
Brass	5,010	0	0
Wall, Bros.	4,953	0	0
Boyce	4,789	0	0
Hobson	4,418	0	0
Lawrence	4,340	0	0
Sargeant	4,295	0	0
Grover	4,283	0	0
Hook & Oldrey	4,200	0	0

For general repairs and decorations to the Great Synagogue, Aldgate. Messrs. Joseph & Pearson, architects. Quantities not supplied:—

		Add for pointing.			Deduct if gilding is only cleaned.		
Mestwerdth	£1,053	0	...	£245	0	...	£115	0
Phillips & Son	975	0	...	141	0	...	192	0
McLachlan & Sons	951	0	...	123	10	...	173	0
Hearn	943	0	...	61	0	...	81	10
Vernell & Griffiths	654	18	...	99	0	...	57	15

For additional story to premises, Nos. 7 and 8, Fetter-lane for Messrs. Shaw & Sons. Messrs. Arding, Bond, & Buzzard, architects:—

Hearne	£1,170	0	0
Macey & Sons	913	0	0
Longmead & Way	882	0	0

For second block of offices, Lime-street, City. Mr. William Wimble, architect:—

McLachlan & Sons (accepted)	£5,000 0 0

For erection of school buildings, boundary-walls, &c., Wrekin-road, Wellington, Salop. Mr. Henry Haddon (Haddon, Bros.), architect. Quantities by architect:—

Edwards, Leominster	£2,498 13 0
Smitheman, Broseley	2,532 0 0
Welsh, Hereford	2,498 0 0
Weale, Newport	2,257 2 2
Farmer, Shrewsbury	2,177 18 0
Bullock & Son, Wellington	2,087 0 0
Blakemore, Oakengates	2,045 13 0
Everal, Malvern	2,017 0 0
Lucas, Wellington	2,004 14 11
Gethin, Shrewsbury	2,003 10 0
R. & J. Millington, Oakengates	1,965 7 9
Bradbury & Co., Wolverhampton	1,935 2 0
W. & J. Crowe, Hereford	1,890 0 0
Roper, Wellington	1,812 6 6
Burrell, Shrewsbury	1,797 0 0
Paterson & Son, Wellington	1,719 11 2
Griffiths, Knockin, West Felton*	1,590 0 0

* Without quantities.

For new Corporation buildings at Ipswich. Mr. B. Binyon, architect:—

Smith, Ipswich	£26,200 0 0
Gibbons, Ipswich	25,000 0 0
Farrow, Wisbeach	23,987 0 0
Howell, Bristol	23,883 0 0
Bennett, Ipswich	23,850 0 0
Girling, Ipswich	23,698 0 0
Everitt, Colchester	23,000 0 0
Pearson, Bradford	22,900 0 0
Jones, Gloucester	25,250 0 0
Grimwood, Sudbury*	21,950 0 0

* Accepted for Portland stone.

For alterations and additions to schools, Turnham-green, for Chiswick School Board. Mr. G. Sanders, architect:—

Hunt	£2,765 0 0
Nye	2,764 0 0
Mears	2,665 0 0
Chamberlin, Bros.	2,663 0 0
Adamson & Sons	2,613 0 0
Brunsden	2,245 0 0

For repairs and redecoration of Sloane-terrace Chapel, Chelsea, for the Trustees. Messrs. Perry & Reed, architects:—

Wall	£850 0 0
Belham & Co.	789 0 0
Higgs & Hill	666 0 0
Hobson	648 0 0
Houghton	601 0 0
Turrell	499 0 0
Craske (accepted)	481 0 0

For alterations to house on the Hagley-road, Birmingham, for Mr. W. Allcock. Messrs. Osborn & Reading, architects. Quantities supplied:—

Taylor	£970 0 0
Jeffery & Son	950 0 0
Partridge	940 0 0
Horsman & Co.	930 0 0
Bowen	920 0 0
Pritchard & Feltham	840 0 0
Wilson & Son	820 0 0
Brooks	809 0 0
Robinson (accepted)	787 0 0

For completing the tower and erecting additional vestry accommodation to St. Faith's Church, Maidstone. Mr. Edward W. Stephens, architect:—

Callund & Son	£2,087 0 0
Wallis & Clements	2,027 10 0
Cox, Bros.	2,026 0 0
Avard	2,000 0 0
Naylar	1,992 0 0
Vaughan, Bros. (accepted)	1,975 0 0

For the erection of a pair of villa residences in the Abbey-road, St. John's Wood, N.W., for Mr. W. J. Langdon. Mr. Thos. Harris, architect. Quantities supplied by Messrs. Mann & Saunders:—

Lamble	£2,991 0 0
Atkins	2,960 0 0
Fish (accepted)	2,800 0 0

For pair of villa residences at Southend, Essex, for Messrs. J. & S. Button. Mr. W. E. B. Storey, architect. Quantities supplied:—

Scott	£1,239 19 5
Steward	1,012 13 6½
Everett (accepted)	960 0 0
Spendelow	835 10 0

For the erection of five houses in the Fairfield-road, Bow, for Mr. S. W. Thompson. Messrs. Hill & Fletcher, architects:—

Alexander	£2,020 0 0
Smith	1,900 0 0
Coleman	1,837 0 0
Diver & Long	1,795 0 0
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Crisp & Tomlin (accepted)	1,347 0 0

For erection of Industrial Dwellings, Thurlow-street, Blackfriars-road. Quantities supplied. Mr. Henry Stone, architect:—

Pink	£3,432 0 0
King	2,923 0 0
Smith	2,758 0 0
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W. & H. Castle	2,080 0 0
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For the erection of St. Paul's Church, Brixton:—

Patman & Fotheringham	£12,500 0 0
Downs	12,000 0 0
Haynes	10,850 0 0
Allen	10,185 0 0
Jones, Gloucester	9,950 0 0
Taylor, Brixton	9,887 0 0
Tongue	9,594 0 0
Wood	9,551 0 0
Castle	9,465 0 0
Grimwood & Sons (accepted)	9,187 0 0
J. C. Jones, Gloucester	8,950 0 0
Everett, Colchester	8,945 0 0

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Cheeseman & Co., Brighton	2,300 0 0
Patching & Son, Brighton	2,081 0 0
Holland, Hurst	2,075 0 0
Norman, Burgess-hill	1,950 0 0

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Nichols (accepted).

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